DOCUMENT RESUME

ED 234 414 CS 207 857

AUTHOR	Bartlett, Elsa J.; Wilson, Jay C.
TITLE	A Study of Narrative Rhetoric. Final Report.
SPONS AGENCY	National Inst. of Education (ED), Washington, DC.
PUB DATE	Dec 82
GRANT	NIE-G-80-0059
NOTE	197p.; Project title: "Development of Narrative Skills in Good and Poor Elementary and Junior High School Writers."
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC08 Plus Postage.
DESCRIPTORS	Case Studies; Child Development; Comparative Analysis; Developmental Stages; Elementary Secondary Education; *Narration; *Rhetoric; Structural Analysis (Linguistics); Writing Exercises; *Writing Instruction; *Writing Research; *Writing Skills
IDENTIFIERS	*Story Structure

ABSTRACT

A research project investigated the development of narrative rhetoric in students in grades 3 through 8 in New York City public schools. Two types of tasks were used, the first requiring students tc write a story about the events depicted in a drawing, the second asking them to correct rhetorical problems in prepared narratives. A series of studies were conducted manipulating various stimulus characteristics and elicitation procedures. Among the many findings are the following: (1) younger children conformed fairly well to the model of simple traditional story structures, while older children conformed more to the "in media res" structure found in certain types of popular fiction; (2) among elementary school children, an increase in rhetorical complexity significantly increased story length; (3) different elicitation stimuli produced slightly different configurations of rhetorical elements implying that, for evaluating purposes, children should be required to produce more than one writing sample; (4) children had little trouble maintaining consistent voice and tense structure in their own narrative composition, but experienced problems when asked to edit others' work; and (5) children at all ages provided explicit causal or motivational information about the actions in their stories. (Extensive appendixes contain materials used in the study.) (FL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED234414

A Study of Narrative Rhetoric

Elsa J. Bartlett

Jay C. Wilson

FINAL REPORT

submitted to

NATIONAL INSTITUTE OF EDUCATION

December, 1982

Project title: Development of Narrative Skills in Good and Poor Elementary and Junior High School Writers

Grantee Organization: Elsa Jaffe Bartlett

Grant Number: NIE-G-80-0059

Principal Investigator: Elsa Jaffe Bartlett

Project Officer: Candace Miyamura

CS 207857

Table of Contents

		Page
Chapter One	Some Introductory Comments	1-1
Chapter Two	The 1978-79 Corpus	2-1
Chapter Three	Patterns of Dramatization in Children's Narratives	3-1
Chapter Four	How Writers Tell Readers That the Ice Is Thin: A Case Study of Narrative Exposition	4-1
Chapter Five	Causal and Motivational Structure in Children's Texts	5-1
Chapter Six	Endings: How Children Describe the Significance of Narrative Events	6-1
Chapter Seven	Rhetorical Complexity in Relation to Other Measures of Children's Developing Literacy Skills	7-1
Chapter Eight	The Effects of Various Narrative Voice Constraints on Coherence and Complexity of Children's Narratives	8-1
Chapter Nine	Children's Skill in Detecting and Correcting Rhetorical Problems in Narrative Text	9-1
Chapter Ten	Some Concluding Comments	10-1
Bibliography		11-1
Appendix A	Stimuli and Elicitation Procedures, 1978-79 Corpus	A-1
Appendix B	Dramatization and Level of Detail Coding Schemes	B-1

Table of Contents

(cont.)

Appendix C	Coding Schemes for Expository Information and Suspense Generating Devices	C-1
Appendix D	Coding Schemes for Causal and Motivational Information	D-1
Appendix E	Coding Scheme for Story Endings	E-1
Appendix F	Stimuli and Elicitation Procedures, 1982 Corpus	F-1
Appendix G	Procedures for Analyzing Story Content, 1982 Corpus	G-1
Appendix H	Editing Stimuli and Task Administration Procedures	H-1

Chapter One: Some Introductory Comments

The research to be reported here concerns the development of narrative rhetoric in elementary and junior high school children. What we mean by narrative rhetoric will become clearer as we go on to define the particular questions addressed in each of the various studies. But at the outset, it may be useful to provide a general overview of the type of question we have in mind.

We can begin with the observation that written narratives, like other types of texts, have both a surface wording and an abstract underlying structure. For example, many would argue that the underlying structure of simple narratives consists of a series of actions which can be construed in terms of a crisis and its resolution, undertaken by some set of animate entitites capable of planning and motivation. (See Figure 1) (e.g, Rumelhart, 1977; Mandler & Johnson, 1977; Stein & Glenn, 1979.) It is important to note that these are abstract properties of narrative and that they need not be manifest in language. For example, an identical narrative structure can be manifest as verbal story, pantomime or non-verbal cartoon. How an abstract structure becomes manifest in a particular form depends on the components or dimensions available to that form, since different forms make use of different dimensions. For example, pantomime draws on spatial placement and temporal sequencing. Although the details are still very much in dispute, most scholars would agree that any particular verbal narrative is manifest as some

temporal organization, motivational or causal framework, narrative voice and level of explicit detail, to name just a few . (Booth, 1961; Todorov, 1977; Chatman, 1978; Gennett, 1980; Culler, 1975) To see how this is so, consider the actions described at the top of Table 1.1. Imagine that these are actions, not written text, presented as a series of pictures or pantomimes. Notice that they can be mapped onto the typical underlying structure of simple stories. Notice also that they can be mapped onto a variety of verbal texts and that the form of the actual text depends, in part, on its particular temporal organization, narrative voice and level of detail. For example, texts may follow the temporal organization indicated in the action sequence or may present information about the actions in a different order (texts one and two). Texts may provide information from different points of view (texts three and four). Texts may render events with greater or leser detail: they can convey what characters actually said, giving the impression of an on-the-spot dramatization or they can summarize whole days or even years of events in a single sentence (texts five and six). Similarly, they can make explicit mention of all underlying action or leave some to be inferred.

The point, then, is that any particular text represents not only a particular set of syntactic structures and vocabulary, but also a particular temporal organization, causal structure, narrative voice and level of explicit detail. It is the realization of these latter components or dimensions which

together constitute what we mean by the notion of narrative rhetoric. Like syntactic structure and vocabulary, these components are fundamental to any narrative text. As Booth has remarked, an "author cannot choose to avoid rhetoric; he can only choose the kind of rhetoric he will employ." (1961, p 149)

For the mature writer, choice of any particular narrative rhetoric is likely to depend on its function. Skilled writers are able to exploit various narrative components to achieve impressive effects. For example, such temporal organizations as flashbacks or foreshadowings can be used to generate suspense or curiosity. (See discussions in Steinberg, 1978) Similarly, narrative voice can be manipulated to achieve irony or a desired philosophical perspective.(See Booth, 1961) Causal frameworks can be used to manipulate reader's empathy. And level of detail can provide important cues to text structure. (Steinberg) But while skilled writers undoubtedly command a wide range of rhetorical techniques and purposes, the skills of a novice are likely to be far more limited. For example, the types of temporal organizations available to novices may not include flashback or foreshadowing and this may severely limit their ability to generate suspense or curiosity. Conversely, novices may construct flashback or foreshadowing sequences but may fail to exploit these for any discernable rhetorical purpose. Similarly, young writers may not be able to construct a narrative voice capable of irony or

philosophic speculation or, in constructing a suitably complex voice, may fail to use it for such functions. At present we know very little about the techniques and purposes available to young novices and the present research has been designed to provide much needed information about their range and complexity.

Our basic strategy has been to analyze rhetorical properties of children's writings and as a result, we will have more to say about the range and complexity of children's techniques than we will about the functions and purposes which may underly their use. For a skilled writer, there is no question that realizations of various narrative components are largely a product of deliberate planning. (Flower & Hayes, 1980) For a young novice, however, planning is apt to be rudimentary, often amounting to no more than an intention to "write a story." How an inchoate plan can result in a coherent, even compelling set of realizations is an important question which will remain largely unexplored in our present work. We will, however, be able to chart certain changes in the nature of children's realizations and if we cannot know a child's intended purpose, we can at least notice similarities between particular realizations (e.g., flashbacks and foreshadowings) and the purposes of skilled adults (e.g., to generate curiosity or suspense).

Our data come from two sets of texts. The first, analyzed in Chapters Two through Seven was collected in

1978-79 as part of a study of referring expressions in children's narratives. Results of that work are reported in Miller, Bartlett, Hirst, 1982; Bartlett, 1981; Bartlett, in press. The second, analyzed in Chapter Eight, was collected in 1981-82 in connection with the present research. In both cases, our methodology enabled us to control for many features of story content while leaving children's use of narrative rhetoric free to vary. This approach allowed us to chart certain age-related differences in rhetoric in experimental situations where all subjects attempt to encode the same set of narrative events.

The research itself consists of four separate sets of studies, each intended to address somewhat different questions concerning rhetorical development. The first, which involves rhetorical analysis of stories written by children in grades three through eight, charts age-related changes in children's realization of certain fundamental narrative components: changes in level of narrative detail (especially changes in children's use of dramatization and summary text); changes in the temporal organization of expository information(especially as these mirror adult suspense-generating techniques); and changes in causal structure. This work is presented in Chapters Two through Six. In Chapter Seven we examine questions concerning the relation between rhetorical complexity and other text and subject variables: for example, relations between various measures of rhetorical complexity, story length and story content as well as relations among these and such subject

variables as gender, grade level, reading level and editing skill. One purpose of this work is to determine the extent to which growth in rhetoric can be differentiated from other aspects of children's developing literacy. Another is to determine the extent to which various rhetorical features remain constant from one writing session to the next.

In a third series of studies, described in Chapter Eight, we examine children's ability to maintain a consistent narrative voice under conditions of varying complexity. Our purpose here is to examine the effects of different situational constraints (including voice and content constraints) on the coherence and complexity of narratives written by children in grades three through six. Finally, in Chapter Nine, we describe a fourth study in which we examine third through sixth graders' skill in detecting and correcting certain common rhetorical inconsistencies involving temporal organization, narrative voice and presentation of expository information.

Table 1.1

Examples of narrative rhetoric

Action	Mapping onto story structure
1) X is ice skating on a pond	setting
2) The ice gives way	crisis
3) X sinks into the water	crisis
4) Y pulls X out of the water	resolution

Text 1 John was skating on a pond. Suddenly the ice gave way. John fell into the icy water. Mike pulled John out of the water.

Text 2 Now John was safe. But moments before he had been immersed in icy water. It all started when he decided to skating on a frozen pond. All had gone well until suddenly, the ice had given way and John found himself plunging into icy water....

Text 3 It was a cold day at Fishers Pond. John and his friends had been skating on the pond for quite some time. All at once there was a terrible cracking sound and John found himself plunging into icy water. He was scared. He called for help....

Text 4 It was a cold day at Fishers Pond. Mike and his friends had been skating on the pond for quite some time. Suddenly, Mike remembered that he had left the hockey sticks at the edge of the water. He was racing to get them when all at once he heard a cry for help. What could it be? He looked all around. He heard the cry again. Then he saw a dark head and arms waving wildly. It was John.It was John. He had fallen through the ice....

Table 1.1
(cont.)

Text 5 Once two boys went skating on a frozen pond. One of them fell into the icy water. The other pulled him out. Then they went home to get warm.

Text 6 Once two boys went skating on a frozen pond. Their names were John and Mike. There was a cracking sound and all of a sudden John fell in. He screamed out, "Help, help!" Mike came skating as fast as he could. At first he didn't know what to do. Then he had an idea. He ran to the closest tree and pulled off a branch....

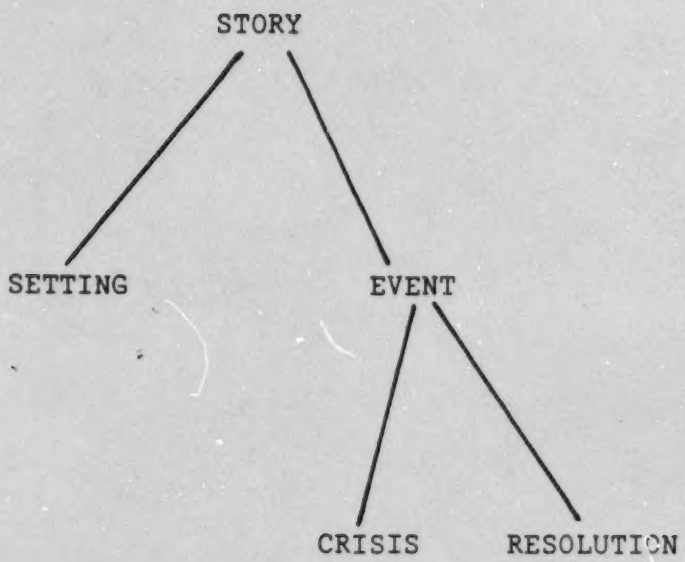

Figure 1.1 Abstract structure of simple story

Chapter Two: The 1978-79 Corpus

Texts in this corpus were collected from children in grades three through eight in four New York City public schools. Altogether 1335 stories were collected from 703 children in 22 different classes. (Table 2.1)

Most children in the study produced two or three stories under several different elicitation conditions. The stories to be analyzed here were written about events pictured in two seven-panel cartoons, one about a boy skater who falls through the ice in a pond and is rescued by two friends and the other about a girl who drifts out to sea in a dinghy and is also rescued by two friends. The eliciting cartoons are reproduced in Appendix A.

Instructions to the children emphasized that they were to write stories. Children were encouraged to conceptualize the figures in the drawings as story characters and to include in their stories events that might have happened prior to and after the events in the cartoons. Instructions for the skating stories are reproduced in Table 2.2. Instructions for the boating stories were similar.

Stories were elicited by research assistants who worked with intact classrooms. In most cases, the teacher was also present, although she did not participate in the story elicitation. In this study we did not record the amount of time that children in each class spent writing, but times are probably comparable to those reported for the 1981-82 corpus, Chapter Eight.

Stories were written on separate days about a week apart. One week prior to the cartoon elicitations, many children also wrote a third baseline story, elicited by means of a simple verbal story-starter. Baseline elicitation procedures are reproduced in Appendix A. Many children also participated in an editing task administered one week after the writing tasks. This is described in Miller, Bartlett & Hirst, 1982.

The data were originally collected as part of a study of anaphoric reference. Results of that study have been reported in Bartlett, in press; Bartlett, 1981; Miller, Bartlett & Hirst, 1982, and will not be recapitulated here. However, we might note that the design of that study required that we compare writings of children judged by their teachers to be above- and below-average in current writing skill. Judgments of writing skill were obtained from the individual classroom teachers by research assistants who asked teachers to rate each child on a three-point scale as being below-average, average or above-average "in current writing ability, as compared with other children in the same grade." Teachers were encouraged to make their judgments "using the criteria that are currently used when children's work is evaluated for report cards." Teacher ratings are available for all participating children and are used as subject variables in the research described in Chapter Seven. Additionally, to insure that children were at least roughly comparable in other literacy skills, the sample included only children who were reading on grade level or above according to each child's most recent standardized reading score or, where a score was not available, according to the classroom teacher's judgment. These reading scores

are also used as subject variables in the research described in Chapter Seven.

The original design called for a sample of above- and below-average writers in each of grades three through eight. However, we were able to find only a handful of subjects in grades three, four and eight who, though reading on grade level, were judged to be below-average in writing. Moreover, it was only at the sixth grade level that we were able to obtain the full number of below-average writers (N=20) stipulated in our original design. By and large, poor writing tended to be associated with poor reading and as a result, relatively few stories from eligible below-average writers were obtained. In all, 398 completed skating stories and 425 completed boating stories were obtained from a total of 459 subjects with appropriate reading scores. The total corpus is presented in Table 2.3.

Characteristics of the corpus

1. Length As can be seen from Table 2.4, older subjects produced longer stories and at each grade level, more skilled writers produced longer texts than their less skilled classmates. Moreover, the mean length of children's stories seems to be about the same from one production to the next. The one exception to this overall trend are the eighth grade stories which are considerably shorter than those produced by seventh graders. Two factors may account for this. First, the cartoons may have been inappropriate for children at this grade level.

Evidence for this comes from the fact that a number of eighth graders (but not children at other grades) produced parodies of our cartoons (e.g., characters drowned at the end). Moreover, the research assistants found these classes more difficult than others to motivate and control during the writing sessions. Second, it is also the case that our seventh graders seemed both exceptionally well-motivated and highly skilled. All had the same teacher for English, a woman who was known in the school for her interest in writing, and her influence may well be reflected in increased fluency among seventh grade writers.

2. Narrative voice Texts in our corpus were constructed according to three basic narrative voice patterns: first person, third person and all-dialogue narrations. (See examples, Table 2.5) Table 2.6 shows the percentage of children at each grade level using each pattern. As can be seen, most children adopted a third person narrative voice in response to the cartoon elicitation, although at each grade level there were children who used other strategies. Since stories in our corpus were elicited by cartoon, it can be argued that the distribution of narrative voice patterns is a function of our elicitation procedures, particularly that children's production of all-dialogue stories might represent an attempt to provide the text that usually appears in comic strip balloons. Comparison of data from cartoon and verbal baseline elicitation procedures, however, shows no change in children's use of all-dialogue stories. The data do show, however, an increase in children's use of first person narratives.

3. Verb tense Although children could have told their stories in present as well as past tense narration, very few did so and of these, most involved the present tense of direct quotation as seen in the all-dialogue stories. (See Table 2.7)

The Rhetoric Sample

Samples for our rhetoric research were selected from the total corpus according to several criteria. Since our primary purpose was to study the development of narrative rhetoric, it seemed important to limit ourselves to texts which made use of the same basic rhetorical strategy. Since third person past tense narrations were by far the most common, it seemed sensible to focus on these. Since we also wished to study changes in rhetoric independent of changes in children's ability to construct plot, it seemed important to limit ourselves to texts which made use of a common event structure. Thus we limited our analyses to texts in which children actually followed the event structure portrayed in the two cartoons. Table 2.8 shows the number and percentage of total stories included at each grade and skill level. It should be emphasized that this sample does not conform to a repeated measures design: while many children contributed two stories, about twenty percent of the boating and skating stories come from independent samples. In those cases where our research required repeated measures, a subset of the total sample was drawn. This subset is described in Table 2.9.

Table 2.1

Number of subjects and classes per grade

Grade	Classes	Subjects
3	4	117
4	4	123
5	5	157
6	3	102
7	3	108
8	3	96

Table 2.2

Instructions: Ice skating cartoon

Explain: "Here is a cartoon. It tells about three boys who are out skating on the ice. I want you to write about the people in the pictures. I don't want you to describe the pictures but to make a story out of what is happening in the cartoon. Your story could begin before the first picture and it could end after the last one, but you should include the action in the cartoon. Study the pictures. Who are these children? Are they like children you know? What might they be saying or thinking? What is happening in the pictures? Can you identify all the things in the pictures?"

If children have any questions about the props in the pictures, be sure to help them out: there is a hockey stick, a branch from a tree, a hole in the ice. These are the crucial props.

Conclude: "Try to make the cartoon come alive. Tell the story in your own way."

Table 2.3

The total corpus: total number of subjects in each category

Skating Stories

Grade	Below-average	Average	Above-average
3	4	16	25
4	1	18	18
5	18	47	26
6	26	46	19
7	15	32	36
8	4	24	50

Boating Stories

Grade	Below-average	Average	Above-average
3	4	18	23
4	2	20	17
5	17	46	28
6	26	32	18
7	20	29	35
8	1	20	42

Table 2.4

Mean number of words per story

Average and Above-average stories combined

Grade	Skating story	Boating story
3	70.87	76.74
4	98.54	98.4
5	102.78	119.72
6	162.45	154.61
7	241.49	221.53
8	149.82	158.96

Above- and Below-average stories

Skating stories

Grade	Above-average	Below-average
5	108.94	85.93
6	162.21	131.56
7	259.06	165.61

Boating stories

Grade	Above-average	Below-average
5	119.87	104.4
6	163.07	134.19
7	265.23	170.38

Table 2.5

Examples of texts constructed according to the three basic narrative voice patterns

Text 1 First person narration

Today me and my two friends emily and carolyn went to the beach When we got there, their was a rowboat. We ate lunch and Carolyn ate her lunch in the rowboat

When all at once the water pulled the rowboat out in the water Carolyn was screaming. She didn't even have any oars. She kept going out and out. emily and me didn't know what to do We tried the oar to reach her, it didn't work. Until we saw rope. I throw the rope out and she got it.

We pulled her back to shore after all that we were all so shocked at what had happened we went home. We were all happy that we got Carolyn back to shore. (6F)*

Text 2 Third person narration

It was a February morning when Jack woke up. He got dressed and went down for breakfast. Jack thought it would be nice if he could play ice hockey on the frozen lake near the park about 1 block away from Jack's house. So he called up Paul and Jim and asked them if they would like to play ice hockey with him So they all met at the lake and brought a net and 3 hockey sticks. They put them on the side and started to ice skate regularly first. They were all gliding and doing tricks when Jim fell into the ice and was stuck in a hole. He was very upset. So Jack and Paul skated to a tree and pulled a branch off of it and skated back to Jim and Jack

Table 2.5

(cont.)

who was behind. Paul gave one end of the branch to Jim and Jack and Paul were at the other end. When all of a sudden the branch snaps and Jack and Paul fell. When they got up they were feeling sorry for Jim. Jim said he was cold and very stiff. Jim knew that Jack and Paul would think of something. And they did. Jack and Paul went and got one of the hockey sticks. Jim didn't know what was going on and he started to cry. By now he was really scared andhe was shaking from scardness and from being cold. When Jim saw Paul and Jack coming with the hockey stick he started to smile. Again Jim took one end and Jack and Paul took the other. Jack was pulling Paul and Paul was pulling Jim. Then finally with all their strength they got Jim out of the hole and they skated to where their stuff was and went home. Jack invited everyone to his house. All day they played a nice game of Monopoly. (6F)

Text 3 All dialogue

Hey! Jim watch it. If you keep skating like that your liable to hurt yourself or somebody else. Aw! Be quiet. I can handle my self any day. Do what ever you want. Come on Greg I'll play you one on one in Ice hockey.

Help! Oh great! he fell in the water. Boy! what do we do now. Lets break a branch off that tree! Come on! swoooooshshsh! Pull as hard as you can. Crack! Darn! It

Table 2.5

(cont.)

broke. Lets get that hockey stick. Pull on this Jim. Phew! I'm sticking with you guys from now on. (5M)

---

*Numbers and letters in parentheses indicate grade and gender of author. Children's spellings and punctuations have been retained in these texts.

Table 2.6

Percentage of subjects using each narrative voice pattern at each grade level in each elicitation condition

Grade	Elicitation type	First person	Third person	All dialogue	Other
3	verbal	19.5	77.1	0	2.4
	cartoon[1]	2.2	86.7	7.8	3.3
4	verbal	14.7	73.5	3.9	7.9
	cartoon	3.9	90.9	3.9	1.3
5	verbal	12.7	74.5	2.8	10.0
	cartoon	8.8	79.1	9.35	2.75
6	verbal	21.9	74.2	2.1	1.1
	cartoon	7.25	87.6	1.65	2.8
7	verbal	27.2	55.4	8.7	9.7
	cartoon	11.7	67.75	3.7	16.8
8	verbal	12.8	69.2	9.0	9.0
	cartoon	1.9	81.1	7.7	9.25

[1]Data are averaged across both cartoon conditions

Table 2.7

Percentage of subjects using a past tense narration at each grade level in each elicitation condition

Grade	Elicitation type	Percent past tense
3	verbal	100
	cartoon[1]	92.2
4	verbal	96.1
	cartoon	96.1
5	verbal	95.4
	cartoon	90.7
6	verbal	98.9
	cartoon	98.7
7	verbal	89.2
	cartoon	91.2
8	verbal	91.0
	cartoon	92.3

[1]Data are averaged across both cartoon conditions

Table 2.8

Number of subjects at each grade and skill level in the narrative rhetoric sample

Skating stories

Grade	Below-average	Average	Above-average
3	0	16 (74)[1]	16 (82)
4	0	16 (95)	17 (87)
5	15 (83)	42 (80)	16 (62)
6	16 (62)	44 (85)	14 (74)
7	13 (87)	28 (66)	17 (69)
8	0	31 (85)	32 (89)

Boating stories

Grade	Below-average	Average	Above-average
3	0	15 (75)	16 (82)
4	0	15 (85)	15 (87)
5	15 (88)	44 (81)	16 (67)
6	16 (62)	32 (92)	14 (78)
7	13 (65)	30 (73)	17 (72)
8	0	22 (95)	36 (93)

[1]Numbers in parentheses=percent of total number of stories available at each grade and skill level

Table 2.9

Number of subjects at each grade and skill level in the repeated measures narrative rhetoric sample

Grade	Below-average	Average	Above-average
3	0	14	14
4	0	13	12
5	14	35	15
6	15	27	13
7	10	22	12
8	0	21	27

Chapter Three: Patterns of dramatization in children's narratives

Narratives occur at many different levels of detail. Narratives can occur as a sequence of generalized summary statements, providing only the barest outline of events. For example:

> One day three boys were skating on a pond. Then the ice cracked and one boy fell into the water. The other two took a branch from a tree and tried to pull him out. But the branch broke. Then they got a hockey stick and pulled him out. He was cold but safe.

Narratives can also be realized in detail. Readers can be told what the characters actually said, how they felt, what they thought, what they looked like, how they moved.

Most narratives emerge as some mixture of the two and as a result, it is not unreasonable to view narrative writing as a process of determining how information about characters and events is to be realized - which parts are to be summarized and which rendered in close detail.

Many theorists have speculated about the rhetorical function of writers' choices. Steinberg, 1978, for example, has argued that amount of detail provides readers with important cues to text structure. Arguing that readers are extremely sensitive to patterns of relative quantity in text, he has gone on to claim that readers identify protagonists and critical events by the amount of detail with which they are depicted. The more text devoted to a particular character or event, the more crucial each is likely to seem. Others (e.g., Gennette, 1980; Todorov, 1977 Culler, 1975) have

argued that level of detail often determines readers' emotional response to text. For example, they have argued that detailed accounts (especially those that portray characters' actual language and thoughts) are likely to be interpreted as representing events from some dramatized, on-going fictive "now" and as a result, are likely to elicit from readers a heightened sense of participation and emotional commitment. How-to books for fiction writers also stress the emotional impact of dramatized text, advising novices that readers prefer action to explanation and reminding them that most current popular fiction writers take advantage of this by starting off with a dramatized passage, often at a point where crucial action is already well underway.(Cassill, 1975; Burnett & Burnett, 1975; Hills, 1977)

Given the rhetorical importance currently imputed to writers' choices, we were curious to know how such choices would be handled in children's narrative texts. Would their texts reveal differences in level of detail? Would children use direct quotation or other features of dramatization and if so, where? What rhetorical functions might these devices perform? Would summary descriptions be used as well? Would children (like adult writers of popular fiction) attempt to grab a reader's attention by beginning their texts with dramatization? Or would they follow the form of more traditional folktales, beginning their stories with summary descriptions of the settings or circumstances in which future action will occur?

These questions were pursued in a number of different analyses. As a first step, it seemed useful simply to determine the extent to which children made use of dramatization in their narration of events. Although dramatization might be indexed by a number of different text features (e.g., detailed description of characters' thoughts and feelings as well as their actions), we decided to measure only one: children's use of direct quotation.

Two coders working independently examined each text in the 1978-79 rhetorical sample for instances of direct quotation. Since many children in our study were poor punctuators, we decided to count as a quotation not only segments that were actually bounded by quotation marks, but also segments accompanied by some explicit indication that an utterance had occured (e.g., language such as he (she) said, cried, screamed, etc.) regardless of how the segment was actually punctuated. Amount of quotation was calculated in terms of conversational "turns." A "turn" was defined as a segment of speech uttered by a single character (or several characters speaking in unison) and uninterrupted by the speech of another. A single turn might thus be presented in several segments, interspersed between descriptions of characters' actions, provided only that the speech was uninterrupted by speech of another. Single turns might range from a single word to several sentences. Details of the coding scheme are presented in Appendix B together with intercoder reliabilities. For the most part,

these were quite high, ranging from 92% to 100% depending on type of text.

Table 3.1 shows the percentage of children at each grade level who produced at least one quotational turn per text. As can be seen, the use of quotation increases throughout the early grades, peaking at the seventh grade and falling off somewhat in the eighth grade sample.

If we examine where the first quotational turn occurs, we find that with younger subjects (grades 3-5) the first turn tends to occur at what we call the point of crisis (which, for the skating stories, occurs when the boy falls through the ice and for the boating stories, when the girl drifts out to sea). (See Table 3.2) Thus, if children in these grades produce quotes at all, they produce them at the point of crisis but not before. The data do show a surprising decrease in the percentage of sixth, seventh, and eighth graders using this pattern. This decrease does not reflect a general failure to use quotations, however, since the percentage of children actually using quotes remains virtually the same in the fifth and sixth grade groups (see Table 3.1). Instead, the data indicate that at about sixth grade, there appears to be a shift in the use of quotations, with quotations occuring more frequently in the early, pre-crisis portions of text. (See Table 3.3) Moreover, analyses of variance show that the change in pattern is statistically reliable. As can be seen in Table 3.4, although there are no main effects for text segment (place

at which quotational turns occur), there are highly significant grade x segment interactions for both boating and skating stories, with the means in Table 3.4 showing the expected increase at sixth grade in the use of quotations in pre-crisis text.

These results indicate that younger and older children may be adopting somewhat different narrative strategies, with younger children tending to postpone use of direct quotation until they have reached the point of crisis in their texts and older children tending to use quotation much earlier (and perhaps from the very beginning). This suggests that for younger children at least, the point of crisis may have been an important point of narrative transition. For one thing, it may have been a point of strategic transition, where children switch from a generalized, summary rendering of events to a detailed realization. It may also have marked a point of temporal transition, where children switch from a description of habitual circumstances and activities that provide a scene-setting framework for the story to a description of the events which are unique to the story and hence form the basis of its action. There areseveral reasons why transitions might be likely at this point. For one thing, if children are following a traditional model of simple story structure (as described in recent story grammars), they would have conceptualized their task in terms of a two-phase composition, requiring both an initial segment of introductory, scene-setting material and a subsequent segment that portrays a unique sequence of events. (See Figure 1, Chapter One) Since almost all of the pictures in our cartoon sequences depicted the accident and

its immediate consequences, it would be only natural for children to take this as constituting the unique sequence of events required by such a model. That all children may not have followed such a model is suggested by the data in Tables 3.1 to 3.4. For example, data in Table 3.1 show that not all children used direct quotations, which suggests that some texts may not have exhibited changes in level of detail that might mark a transition from scene-setting to portrayal of unique action. Also, data in Tables 3.3 and 3.4 suggest that if such changes occur at all in the texts of older children, they occur prior to the actual onset of the accident.

Transitions from scene-setting to portrayal of unique action were investigated in another series of analyses, designed to extnd the results of our study of direct quotation. These analyses focused on text at the point of crisis (the onset of the accident) and were intended to show whether this marked a point of transition between scene-setting description and portrayal of unique action. As one index of such a transition, we measured children's use of three text features which together seemed to provide a reasonable index of level of detail: 1) use of direct quotation; 2) information about characters' thoughts and feelings; 3) use of action verbs which contain as part of their meaning notions of fear, haste, urgency or some other emotion that would be plausible in reaponse to the accident (e.g., rushed or snatched as opposed to went or took). (The complete coding system is described in Appendix B)

Two coders working independently analyzed each text for the presence or absence of any of these features at the point of crisis and in precrisis text. Overall, the intercoder reliability was 90%, with reliabilities for each of the features at each of the grade levels varying from 83% to 100% (See Appendix B).

Results indicate that as children get older, they are more likely to adopt some or all of these features at the point of crisis. However, as can be seen in Table 3.5, a sizeable percentage of the children at the third and fourth grade levels produced texts in which none of these features occur. Examples of these texts appear in Table 3.6, part one. As can be seen, both pre- and post-crisis portions of text seem to realized at a fairly generalized level of detail. Moreover, as can be seen in Table 3.5, when younger children do use these features, the features are more likely to be used singly than in combination. For example, children may use no more than a single quotation or one brief sentence telling how a character felt, providing at best only a very subtle increase in detail. (See Table 3.6, part two) Finally, as data in Table 3.7 show, these features are not likely to appear in the pre-crisis portions of the younger children's texts, but only begin to appear here at about the sixth grade level. This is consistent with data reported in Tables 3.2 and 3.3 and suggests that for children in grades three through (about) five, the point of crisis does seem to mark a transition from summarized to detailed text.

As a second index of transition from scene-setting to portrayal of unique action at the point of crisis, we examined temporal features of children's texts. We measured two: 1) children's use of those verb tenses which indicate habitual as opposed to punctual or unique action (past or present progressives vs. simple pasts or presents); and 2) children's use of adverbials that indicate sudden onset (e.g., suddenly, all at once). (See Appendix B) Once again, two coders independently coded each text, with reliabilities that averaged between 90% and 100%, depending on type of feature.

As can be seen in Table 3.8 different patterns of use occur. Among our youngest subjects, we find a tendency to switch verb tenses at the point of crisis but little use of an adverbial to mark the notion of sudden onset.(See example, Table 3.6, part one) As children get older, the use of an adverbial increases. However, at about sixth grade, there is less tendency for children to switch tenses at the point of crisis: here the majority of children use simple past tense throughout. (See example , Table 3.6, part four)

Taken together these analyses support the notion that older and younger writers may be adopting somewhat different narrative strategies. The evidence suggests that for younger children, the point of crisis does mark a point of narrative transition, where children switch from a generalized summary of events to a more detailed realization and from verbs

indicating habitual activity to verbs that describe unique events. The resulting texts tend to conform to the story model described by current story grammars (See Figure 1, Chapter One).By contrast, texts of older children are more likely to omit an initial segment of generalized summary and to start right off with unique action narrated in considerable detail. For these subjects, then, level of realization and temporal organization tends to be fairly uniform throughout and apart from an adverbial to indicate sudden onset, there may be little change in narrative strategy at the point of crisis. The resulting texts tend to conform more to a model of popular model fiction with its in media res beginning. (See descriptions in such current how-to books as Cassill, 1975; Burnett & Burnett, 1975; Hills, 1977; as well as discussions in Steinberg, 1978.) Finally, we might note that texts of our very youngest subjects tend to provide only a minimal transition at the point of crisis. For while these texts generally exhibit a change in tense at the point of crisis (Table 3.8), many fail to exhibit any change in the level of detail (Table 3.7), maintaining a fairly generalized summary description of events throughout. Moreover, as the data in Table 3.6 show, the development of dramatization skills may be fairly subtle, with children initially using only one or two features at the point of crisis.

Analyses of variance generally confirm the statistical reliability of these findings. For example, in one set of analyses we examined children's use of the following dramatization features at the point of crisis: direct quotation, information about characters' thoughts and feelings; verbs indicating haste or urgency; and adverbials indicating sudden onset. Texts were scored according to the total number of different features, with scores ranging from 0 (use of no features) to 4 (use of all four). In one of these analyses, we compared texts of those average and above-average writers in grades three through eight who produced both skating and boating stories. A repeated measures analysis of co-variance was used with story type as the repeated measure and number of words per text as the co-variate. As can be seen in Table 3.9, the analysis revealed a highly significant main effect for grade, but none for story type. In a similar analysis, we compared texts of children judged by their teachers to be below- and above-average in current writing skill. Here we find a significant main effect for level but again no effect for story type. The lack of main effect for story type is important since it suggests that children's use of these features may reflect the use of narrative strategies which are fairly stable from one composition to another (at least within the three-week time span of our research) and points once again to the possibility that children may be making use of fairly stable story models in composing these texts.

By contrast, although the number of different features remained fairly constant from one writing session to the next, the actual choice of feature as well as its particular realization seemed to vary, depending on the particular story content. For example, while direct quotation was used at the point of crisis by a large number of subjects in both writing sessions, quotations were nonetheless more likely to occur in the boating than the skating stories. By contrast, the skating stimuli tended to elicit a greater percentage of verbs of haste and urgency as well as a slightly greater use of adverbials to indicate sudden onset. (Tables 3.10, 3.11, 3.12) More generally, the data show a somewhat diversified use of these features in the skating stories: for while direct quotation was by far the most likely feature to occur in the boating texts, the skating texts were equally likely to make use of adverbials and verbs of haste and urgency.

Moreover, the realization of these features also differed, depending on the story. For example, while a direct quotation in the boating story was less likely to be realized as an utterance by either of the two rescuers, quotation in the skating story was about as likely to come from the rescuers as from the victim. This trend was also observed in the realization of characters' inner thoughts as well as verbs describing their movements. (Table 3.13)

Overall, then, the data indicate the presence of fairly stable narrative strategies (perhaps based on stable models

of story structure) which dictate if and where dramatization is likely to occur. How these strategic decisions are actually implemented, however, appears to depend on the particular characters and events.

These results no doubt depend to a certain extent on the particular conditions and stimuli used in our experiment. For example, had our stimuli portrayed characters and events associated with traditional tales (e.g., kings, princes, witches, etc.) we most likley would have obtained many more texts from older subjects that conformed to the simple story model. More generally, we might expect that older children would be able to draw on a wider range of story models and that for them, choice of narrative strategy may depend in large part on its perceived suitability to story content. We would expect, however, that younger children would have access to a more restricted range of models and as a result, their choice of strategy would tend to ignore content.

Finally, we might note that while certain writing decisions may have certain effects on readers' interpretations of text, writers need not have foreseen or intended these effects

during composition. For example, shifts in level of detail can serve as major cues to story structure (e.g., a shift to greater detail may function to signal the onset of a crisis). But while readers may interpret these features in this way, writers need not have explicitly intended such interpretations. Young writers may produce an increase in detail not because they wish to indicate the presence of a crisis but because of their own response to a particular turn of events. For example, level of detail may be increased at a given point in response to a writer's own interest in the developing action without any regard for possible reader reactions or rhetorical effect.

At present, it is unclear to what extent presence or absence of certain features in children's texts implies a regard for rhetorical plan or function. Uniformity across writing tasks suggests a certain stability in children's approaches to narrative writing, but does not tell us how children have actually conceptualized the task. We will want to argue on the basis of data presented in the next chapter that older children may have begun to conceptualize their writing in terms of rhetorical alternatives- particularly alternate ways of conveying important expository information. However, it is unclear to what extent the patterns of dramatization observe here are part of writers' deliberate rhetorical planning.

Table [illegible]

Percentage of subjects at each grade level producing at least one quotational turn per text (skating and boating stories combined)

Grade level	
3	27%
4	47%
5	60.5%
6	66%
7	87%
8	66.75%

Table 3.2

Percentage of those subjects who produceed quotational turns whose first quotational turn appeaars at the point of crisis (skating and boating stories ccombined)

Grade level	
3	61%
4	68%
5	64%
6	28%
7	13.5%
8	15%

Table 3.3

Percentage of those subjects who produced quotational turns whose first quotational turn appears prior to the point of crisis (skating and boating stories combined)

Grade level	
3	11%
4	20%
5	26%
6	48%
7	70%
8	53%

Table 3.4

Analysis of co-variance, quotational turns (number of words per text as co-variate)

Skating stories

Variable	Mean square	f score	d.f.	probability
Grade	2.35	3.18	,292	.008
Text segment	.38	1.1	1,293	n.s.
Grade x seg.	1.82	5.24	5,293	.0001

Means

Grade level

	3	4	5	6	7	8
Pre-crisis text	.31	.42	.36	.44	.88	.49
Crisis text	.36	.85	.68	.21	.62	.47

Boating stories

Variable	Mean square	fscore	d.f.	probability
Grade	1.58	2.08	5,280	n.s.
Text segment	.99	2.49	1,281	n.s.
Grade x seg.	3.04	7.67	5,281	.0001

Means

Grade level

	3	4	5	6	7	8
Pre-crisis text	.41	.34	.42	.59	1.09	.54
Crisis text	.74	.66	.86	.34	.67	.64

Table 3.5

Percentage of subjects at each grade level producing features associated with detailed description at the point of crisis (skating and boating stories combined)

Grade	Ø features	1 feature	more than 1 feature
3	49%	27%	24%
4	24%	30%	46%
5	16.5%	36%	47.5%
6	16	27%	57%
7	05%	05%	90%
8	09%	17%	74%

Table 3.6

Examples of texts that portray the crisis with varying amounts of dramatic detail

Part One: Generalized crisis description

Once upon a time three boys went ice skating and there names wher Jon and Pual and Tom.

They all went ice skating then Jon fell in ice water. then Tom took a branch from a tree then Jon grabed it then it broke in half.... (3F)*

Part Two: Texts showing a single dramatic detail at the point of crisis

Text 1 Once upon a time there were three boys. One of the boys name was Tommy and Donny and Steve. They went iceskating in the country. They came to the iceskating place. They played hockey. Then one boy fell into the ice. He shouded help. The other two boys took a stick.... (3M)

Text 2 One day Jason, Jessee and Steven went skating in central park. They were realey earley so no one else was there. Jason did a trick and the ice broke. Steven and Jessee were panacked. They broke off a branch and handed it to him....(5M)

Text 3 One day Jim Roger and Boomer they were skating on the ice. suddenly Jim fell in the ice Boomer and Roger went to get a branch.... (4M)

Table 3.6

(cont.)

Part Three: Text showing multiple dramatic details after the point of crisis

One day John, Steve and Bill were ice skating. There was a crack and all of a sudden John fell in. He screamed out, "Help, help!" Steve and Bill came running. They didn't know what to do. Then they had an idea. They ran to the closest tree.... (5M)

Part Four: Text showing multiple dramatic details prior to the point of crisis

One day 3 boys, Tom, Mike and Kieth, wanted to go skating on the lake so they got their skates and went to the lakes edge.

"Last one on the ice is a rotten egg," said Mike "everyone encluded."

So they went on the ice and Tom was the last one.

"Ha, ha your the rotten egg Tom" said Kieth and Mike.

"I'll show you," said Tom.So he raced on the ice. Suddenly there was a crack. Tom had fallen through the ice... (6F)

---

*Numbers and letters in parentheses indicate grade and gender of author. Children's spellings and punctuations have been retained. Italics are ours and indicate where the point of crisis occurs.

Table 3.7

Percentage of subjects at each grade level producing features associated with detailed description in pre-crisis portions of text (skating and boating stories combined)

Grade	at least one feature
3	08%
4	10%
5	15%
6	49%
7	61%
8	48%

Table 3.8

Percentage of subjects at each grade level who switch tense and use adverbials at the point of crisis (skating and boating stories combined)

Grade	tense switch	sudden onset adverbial
3	79%	19%
4	64%	32%
5	68%	50%
6	47%	51%
7	32%	56%
8	48%	53%

Table 3.9

Repeated measures analysis of co-variance, number of dramatization features at the point of crisis (story type as repeated measure; number of words per text as co-variate) (N=225)

Variable	mean square	f score	d.f.	probability
Grade	3.9	3.8	5,218	.002
Story type	2.37	3.16	1,218	n.s.
Grade x type	6.47	.82	5,218	n.s.

Mean number of features

Grade	
3	1.29
4	1.47
5	1.90
6	1.58
7	1.63
8	1.76

Table 3.10

Percentage of subjects at each grade level who use dramatization features at the point of crisis and whose use includes at least one direct quotation

Grade	Skating story	Boating story
3	30	83
4	68	64
5	63	79
6	42	81
7	74	91
8	56	92

Table 3.11

Percentage of subjects at each grade level who use dramatization features at the point of crisis and whose use includes at least one verb indicating haste or urgency

Grade	Skating story	Boating story
3	38%	9%
4	36%	10%
5	37%	23%
6	40%	28%
7	46%	36%
8	52%	42%

Table 3.12

Percentage of subjects at each grade level who use dramatization features at the point of crisis and whose use includes an adverbial to indicate sudden onset

Grade	Starting story	Boating story
3	50%	35%
4	45%	35%
5	60%	50%
6	62%	50%
7	49%	34%
8	54%	43%

Table 3.13

Percentage of subjects at each grade level who use dramatization features at the point of crisis and whose use involves a description of victim's or rescuers' speech, feelings or movements

Skating stories

Grade	Victim	Rescuer	Victim and rescuer
3	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]
7	27%	26%	39%
8	24%	30%	36%

Boating stories

Grade			
3	61%	0%	11%
4	53	05%	10%
5	58%	07%	20%
6	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]

Chapter Four: How writers tell readers that the ice is thin: a case study of narrative exposition

Narratives are both current action and background exposition. At any given point, there is the action of the fictive "now" and the background conditions and setting in which that action occurs. Writing narratives is in part a matter of deciding how to distribute information between the two: what to depict as exposition, what as foregrounded immediate action and how to interleave the two.

Many theorists have speculated about the rhetorical function of various patternings of action and exposition. Steinberg, 1978, Todorov, 1977, Genette, 1980, and others have observed the effects of different arrangements on readers' emotional response to text. For example, Steinberg, 1978, has noted that authors sometimes generate feelings of suspense or curiosity depending on how they introduce background information. If writers introduce new information without explaining its precise significance and if, in the context, readers can construe such information as bearing on the welfare of the character, then readers are likely to do so and to feel hope or fear, depending on the most likely construal. (Olson, Mack & Duffy, 1981) Thus, for example, if the young writers of our sledding stories mention that the day is getting warmer or that the ice is getting thinner, their readers may well construe this to mean that the skaters are in danger and may begin to feel some anxiety concerning their safety.

Theorists have also noted the role of "voice" in narrative structure, describing a number of complex relations between readers' interpretations of background information and the "voice" in which that information is conveyed. (Booth, 1961; Bruce, 1981) Thus, for example, background information can be directly conveyed in the voice of an (implied) author or narrator, appearing as a straightforward piece of expository description. Or it can be conveyed more indirectly, perhaps within the conventions of an on-going dramatization, embedded in dialogue or in some character's inner speech. The information may also have a fairly complex relation to the plot, perhaps being known to some (but not all) characters or to none.

Given the potential for complexity in adult narratives, we were curious to know the extent to which any of that potential would be realized in the texts of children. To be sure, we would not expect them to exhibit the full range of adult possibilities. Nonetheless we might expect our older subjects to attempt some of the more complex arrangements of background material. For example, while we might expect younger children to present expository material straightforwardly, in the voice of an author or narrator, we might expect older children to begin to attempt some of the more indirect presentations, perhaps conveying information through dialogue or inner speech. Similarly, we might expect older children to portray more complex

relations between characters' access to background information and subsequent events. Finally, we might also expect older children to attempt to introduce background information in ways that might begin to serve certain rhetorical functions, e.g., to generate curiosity or suspense.

These aspects of narrative exposition were investigated in several analyses, to be described below. However, before we go to to describe these studies in detail, it is important to point out that expository features of the texts in our corpus were almost entirely uncontrolled. For while cartoon stimuli dictated characters' activities, they conveyed very little information about background circumstances. In the boating cartoon, for example, we see that a child is in a small boat but we are given no information as to why or why the boat subsequently makes its way, oarless, into deep water. Similarly, in the skating cartoon, we see that a skater has fallen through the ice, but we don't know whether the ice was particularly thin, how it came to be thin, or whether the characters had been warned about its dangerous condition . The stimuli left our writers free to add as much or as little background information as they wished and as a result, the amount and type of expository detail in children's texts varied widely. This was unfortunate, since we wished to investigate expository strategies in situations where amount and type of expository information were at least roughly comparable

across compositions. In an attempt to exert at least some post hoc control over variation in content, we thought it best to limit our analyses to some single piece of expository information, preferably one which was included by at least half the children at each grade level. Analyses of expository content in both boating and skating stories showed that thesingle most frequently included piece of expository information was information concerning the state of the ice in the skating story prior to the accident. As can be seen in Table 4.1, this was included by at least half the children at all but the third grade level. Given its frequency, we decided to focus our analyses on this piece of exposition.

Almost invariably, if information about the state of the ice was included, it occured in the pre-crisis portion of a text. For younger children, (grades 3-5) this generally meant that the information occured in introductory descriptive portions of the text where dramatization had not yet occured and where text consisted mostly of a generalized expository summary, conveyed in the voice of an (implied) author. (See Chapter Three) (See examples one and two, Table 4.2) For many older children, however, the information was conveyed in portions of text where dramatization had already been established and where background information could therefore be conveyed either as expository description, in the author's voice, or within the conventions of the dramatization, as dialogue or inner speech. (See examples

three through six, Table 4.2) In our first analysis, we examined the strategy adopted by these older subjects: did they integrate background information into the conventions of the on-going dramatization or did they present it as narrated description?

Data for this analysis came from all skating texts which provided explicit information about the state of the ice and in which direct quotation or inner speech occured prior to the crisis. Two coders, working independently, examined each text in the 1978-79 rhetoric corpus containing pre-crisis dramatization to determine if it contained explcit information about the state of the ice and whether that information appeared in a segment of direct quotation or inner speech. Intercoder reliabilities were high: 92% for identification of appropriate information and 95% for identification of direct quotation or inner speech. (For details, see Appendix C.)

Table 4.4 shows the percentage of those texts at each grade level which contained direct quotation or inner speech prior to crisis and which also contained information about the state of the ice. Table 4.5 shows the percentage of texts at each grade in which information about the state of the ice was conveyed indirectly through the use of direct quotation or inner speech. As can be seen from Tables 4.3 and 4.4 there is a marked increase in the presence of pre-crisis dramatization at about the sixth grade level. However, it is not until about seventh grade that the majority of

children who produce precrisis dramatization use it to convey expository information. Although both dramatization and this particular piece of expository information may both be present in precrisis segments of the texts of younger children, the two are much less likely to be combined. As a result, expository information in these texts is generally conveyed as narrated description, despite the (often extensive) use of direct quotation, while direct quotation is generally used to portray social interaction without fulfilling an additional expository function. The difference is illustrated by the texts in Table 4.6. Although all texts make extensive use of direct quotation, it is only in texts three and four that the quotations serve the double function of providing background exposition as well as portraying social interaction. Overall, then, the data suggest that the combining of functions may be a late development, occuring only after each has been practiced as a separate, uni-functional narrative component for a period of time.

In a second set of analyses we investigated the extent to which children provided explicit information concerning characters' knowledge of the state of the ice. Once again, we are concerned with the integration of expository information with other features of text, but here our concern is with the relation between exposition and plot. For although writers may have conveyed the information that the ice was thin or melting, they need not necessarily have conveyed information

concerning characters' knowledge of this fact and this, in turn, may leave readers unclear as to the significance of information about the state of the ice for the on-going action. Consider, for example, texts one and two in Table 4.7. Here the writers state that the ice is thin, but provide no guidance as to how this information is to be related to plot. Do the characters know? If so, why are they there? Based on knowledge of the world, readers might assume that the characters are ignorant, else they would have good reason not to skate there. But other construals are as likely and have not been ruled out by the text. This lack of constraint is especially evident when these texts are compared with examples three, four and five, where the writers have taken pains to insure that a particular interpretation occurs. In these analyses, then, we are concerned with characters' knowledge of background information: to what extent do authors convey explicit information about characters' knowledge of the state of the ice?

Data for these analyses come from all skating stories containing information about the state of the ice. (See Table 4.1) Two coders, working independently, classified all instances of information about the ice as being 1) explicitly known to the characters; 2)explicitly unknown by the characters; or 3) without explicit relation to characters' knowledge. On the assumption that all characters present during a depicted conversational interaction would have had knowledge of what was said, we placed in the first category all instances in which information about the state of the ice was presented

as direct quotation. Intercoder reliabilities ranged from 86% to 94%, depending on the type of category and text. (See Appendix C.)

The results are presented in Table 4.8. As can be seen, children's use of explicitly marked information increased with age. Unlike the data concerning children's use of dramatized exposition, there is no marked increase in the use of explicit information at any one grade level. Rather the data show a gradual increase throughout the elementary and junior high school years. Moreover, when children did present explicit information about characters' knowledge of the state of the ice, they were more likely to invent situations in which characters are aware of the danger and this was true at all ages. This suggests that explicit portrayal of unawareness may have been either unsuited to the particular story content or somewhat more difficult to execute. Inspection of the texts in Table 4.7 provides no obvious grounds on which to argue that explicit unawareness may have been unsuited to the story content.

However, there are several reasons why portrayal of explicit unawareness may have been somewhat more difficult for children to articulate. For one thing, portrayal of explicit unawareness requires an explicit differentiation of narrator's and characters' points of view. For although any narrated (non-dramatized) description may be said to occur in the voice or knowledge system of a narrator, we would want to argue

that there are important differences between texts (such as 1 and 2, Table 4.7) in which the status of characters' knowledge remains unclear and texts in which a differentiation between narrator's knowledge and characters' knowledge is explicitly maintained. (Example five, Table 4.7) More generally, we would want to argue that information conveyed as expository description need not imply any conceptualization of or commitment to a separate narrator's voice or knowledge system, but may exist in an inchoate or ill-defined category of narrative information whose status (as conceptualized with respect to either the characters or the reader) may remain indeterminate. Although readers may ultimately make some determination (based on their knowledge of the world or of fictional convention), writers need not have explicitly done so. But when writers convey explicit information concerning characters' access to information, then we would want to suggest that such writers are conceptualizing distinct systems of knowledge and that these become distinct dimensions of choice in narrative writing and hence potential elements in any narrative plan.

In the same vein, we would want to speculate that writers whose texts are explicit concerning the status of background information, relating it to characters' knowledge and plot, are more likely to have conceptualized their texts in terms of readers' interpretative activities and to have engaged in some type of rhetorical planning. Additionally, we would want to speculate that such writers are better able to identify

and describe various rhetorical functions and techniques. For one thing, we would predict that such writers would be better able to edit rhetorical features of texts. At the same time, we would expect them to be better able to describe rhetorical devices and their functions in their own texts and the texts of others.

A final analysis concerns children's use of expository information to generate suspense. Other things being equal, we would expect any intimation that the ice is thin to generate anxiety concerning the safety of the skaters and hence some minimal amount of suspense. Suspense might be especially strong in situations where characters remain ignorant of the state of the ice, but even in situations where characters suspect a problem (regardless of whether they approach it with defiance or caution), suspense is generated as long as the validity of their suspicions remains in doubt. Suspense can be generated in other ways as well. For example, writers can evoke anxiety or concern simply by having a character (or narrator) voice a premonition or vague uneasiness. Writers can also suggest trouble by indicating that skaters are especially unskilled or that they typically court danger. (For an account of how such devices might work to generate suspense, see discussions in Steinberg, 1978, as well as Olson et al, 1981) Writers can also generate suspense by postponing a full account of the accident. This can be done in several ways: for example, by beginning with the information that an accident occured

and then withholding the details or by narrating the accident from the point of view of someone (an on-looker or one of the rescuers) who may intiailly have only partial knowledge of events.

As these examples suggest, generation of suspense requires a fair amount of advance planning as well as a capacity to maintain and coordinate several distince temporal organizations. Writers must keep in mind a future narrative goal (the accident) while at the same time attending to the on-going narration of prior events. Hints about the future crisis must be inserted into the on-going stream of activities without disrupting its sequential coherence. Moreover, the selection of appropriate hints requires a certain canniness about readers' expectations as well as practical knowledge about how trouble is likely to occur in the world.

Given these complexities, we would hardly expect to find extensive use of these devices in children's stories. Nonetheless, it is possible that some might begin to appear in rudimentary form, particularly in texts of our older subjects. The present analysis was designed to investigate this possibility.

Data for these anlayses come from the entire rhetorical corpus of skating stories. Two coders, working independently, examined each text for evidence of four suspense-generating devices: 1)inclusion of information that the ice is thin; 2) voicing of premonitions or feelings of uneasiness without necessarily attributing these to any particular feature of the situation; 3) inclusion of information that characters were especially unskilled skaters or especially likely for

other reasons to get into trouble; and 4) delay in the presentation of information about the nature of the accident.

Since suspense implies the presence of some delay between an intimation of danger andknowledge of its actual occurance, we added the further stipulation that a device be counted as suspenseful only in cases where one or more sentences or main clauses intervened between the candidate device and explicit presentation of information that a character had fallen through the ice. Using these criteria, texts such as 4,5,6 in Table 4.9 were counted as being suspenseful while texts 1,2,3 were considered unsuspenseful despite their inclusion of the requisite device. Overall, coders were able to categorize texts at a 89% level of reliability, with reliabilities ranging from 82% to 95%, depending on type of device.(See Appendix C)

Results are presented in Table 4.10. As can be seen, children's use of suspense-generating devices increases throughout the elementary and junior high school years, until by seventh grade these devices are present in about half the texts. This increase seems to be a function of two rather different developments. The first, occuring at about fifth grade, involves an increase in the suspenseful use of information about the state of the ice. The second, occuring at about seventh grade, involves the use of a delay in the presentation of full information about the nature of the accident. Almost invariably, the delay is accomplished

by presenting information about the accident from the rescuers' point of view. (See text six, Table 4.9) By comparison, children at all grade levels were less likely to use statements about premonitions or about such character attributes as skating skill to accomplish suspense. Taken together, these account for no more than 28% of the total found in our corpus.

Overall, then, there is evidence that some elementary age children are able to engage in the suspenseful presentation of information about the accident and that by junior high school, suspenseful devices are occuring in about half the texts. This suggests that by the end of the elementary grades, many children may be engaging in a fairly sophisticated narrative planning which requires them to keep track of a narrative goal (the crisis) while at the same time portraying an on-going sequence of prior activities. Moreover, as the data from our other analyses indicate, many children at this age level are also able to achieve other fairly complex coordinations of narrative information, combining the portrayal of social interaction with presentation of background information (Table 4.5) as well as providing explicit linkages between exposition and the on-going plot (Table 4.7). This suggests that by junior high school many students are able to engage in a number of different plurifunctional rhetorical organizations.

One question that might be raised about these results concerns the extent to which they can be generalized to other types of texts. For example, would children be as likely to engage in plurifunctional rhetorical organizations of expository

texts? Would their texts show evidence of planning? Would children foreshadow the main thrust of an argument or attempt to anticipate possible counter-arguments? Comparison of our data with data reported by Scardamalia, 1982, suggests that the answer is likely to be "no": Contrary to our findings, Scardamalia reports that few upper elementary and junior high school students showed evidence of planning

expository discourse and few were able to foreshadow the thrust of an argument. One can imagine many reasons why children skilled in narrative rhetoric might have difficulty using comparable devices in expository text. For one thing, while most elementary and junior high school students have had considerable exposure to sophisticated narrative rhetoric, they may have had no exposure at all to expository text. Lack of exposure may prove crucial. However, it may also be the case that coordination of logical sequences (such as are required in an expository argument) may require somewhat different cognitive skills and that these take somewhat longer to develop.

Table 4.1

Percentage of subjects at each grade level who include explicit information concerning the state of the ice in the skating story

Grade	
3	24%
4	51%
5	53%
6	57%
7	55%
8	51%

Table 4.2

Texts describing state of the ice

Text 1 One day three people went ice skating. there names were Harvey, Tod and Matt. While they were skating, Tod fell through some thin ice. Matt and Harvey raced to help.... (5M)*

Text 2 One day Peter, Alan and David went to the frozen lake in the woods they brought all of their hockey equipment but none of their other friends showed up to play hockey. The three boys decided just to skate around the lake. All three boys were racing and suddenly Alan fell through the thin ice. David and Peter didn't know what to do....

Text 3 One afternoon three boys went ice skating. They were skating around and one boy said, "Watch out for holes in the ice!" But it was too late. He fell right through.... (6F)

Text 4 One day John, Tommy and Paul were skating on a frozen lake. Then John saw a sign that said Do no pass this cord (thin ice). John told Tommy not to go pass that cord. I'm a pro. I can skate on thin ice. said Tommy. No said John. But then Tommy fell through the ice.... (6M)

Text 5 ..."Are you kidding," said Bill "You'll kill yourself. The ice is too thin."

"Thin nothin. Let's go," said Jim.... (8F)

Text 6 ..."Hey! It's frozen. Let's go get our skates," said Mark.

"Couldn't that be dangerous? What if it gets unfrozen while we're skating?" cautioned Mike.... (8F)

Table 4.2
(cont.)

*Numbers and letters in parentheses refer to grade level and gender of author. Children's spellings and punctuations have been retained. Italics are ours and are intended to call attention to relevant portions of texts.

Table 4.3

Percentage of texts at each grade level in which direct quotation or inner speech occured prior to the crisis

Grade	
3	08%
4	18%
5	23%
6	43%
7	62%
8	55%

Table 4.4

Percentage of children at each grade level whose texts contained both direct quotation or inner speech prior to the crisis and information about the state of the ice

Grade	
3	00%
4	13%
5	20%
6	37%
7	52%
8	45%

Table 4.5

Percentage of texts at each grade level in which information about the state of the ice was conveyed through direct quotation or inner speech

Grade	
3	00%
4	00%
5	07% (33%)*
6	10% (27%)
7	40% (66%)
8	27% (58%)

*Percentage in parentheses represents the percent of all eligible texts at a given grade level (i.e., texts which contained both pre-crisis quotation and information about the state of the ice)

Table 4.6

Plurifunctional texts: integration of social interaction with expository function

Unintegrated texts

Text 1 One cold winter morning a boy named Mike woke up. He got dressed and looked at his watch. It was 8:00 a.m. the time when he was supposed to meet his two friends: Mark and Bob to go ice skating. He grabbed his ice skates and ran out the front door. Sure enough there were Mark and Bob.

"Lets hurry to the pond or else everyone will be there and we won't have any time alone, said Mike." "Yah we better hurry up, said Bob.

They arrived at the lake and began skating. Mike found a hockey stick. All of a sudden to Mark's horror he found himself plunging down through the thin ice.... (5M)*

Text 2 "Hey Joe, lets go play some hockey. We'll work on our slapshots," Scott said eagerly over the phone.

"You call Steven and we will all meet on 'Cherry Hill Lake,'" Scott said to Joe. So they all got into their winter clothes and got their skates, hockey sticks, pucks and a portable net. In 15 minutes they all met on the side of the lake on a bench.

"Hurry man, put those skates on," Joe yelled.

"I'm hurrying, I'm hurrying!" replied Scott and Steven together. Joe was the first one on the ice, then Scott, then Steven. For about a half an hour they played hockey. So,

Table 4.6

(cont.)

they put their hockey sticks down and practiced figure eights. All of a sudden CRACK the thin ice broke and Joe fell in.... (7M)

Integrated texts

Text 3 John, Paul and Jason ran to the frozen pond. They quietly put on their skates, anxiously awating the first time of the year that they would skate on the familiar pond. They skated around the pond getting used to the ice. John became more comfortable on the ice and he wobbled out into the center.

"Come on" he shouted to the other. They shakily skated out to the center where John had started to do figure eights.

"John come out of the middle the sign says 'thin ice'"

"What are you my mother. this sign was put here three days ago. it's frozen now." John skated closer and closer towards the sign. "Come on, Lets see who dares me to go any closer."

Jason started to speak but John took it as a dare.... (7F)

Text 4 Bob said, "I still say that we should listen to the thin ice sign."

"Nonsense," Peter said "They just put that up to scare you."

"Why would they do that?" Jimmy disagreed.

Table 4.6

(cont.)

"I don't know," said Peter.... (8M)

---

*Numbers and letters in parentheses refer to grade level and gender of author. Children's spellings and punctuations have been retained. Italics are ours and are intended to call attention to relevant portions of texts.

Table 4.7

Examples of texts in which authors are more or less explicit about characters' knowledge of the state of the ice

Characters' knowledge remains unclear

Text 1 One day three boys went ice skating. But since the ice was not very thick one of the kids fell in. The other two rushed to help him.... (8M)*

Text 2 One day three boys were ice skating. Steven, Mikie and David. They were having a great time but the ice was thin. And then all of a sudden Steven fell through the thin ice.... (5F)

Characters are explicitly aware of state of the ice

Text 3 One day three boys the age of 12 where playing ice hockey they ignored the sign saying DANGER THIN ICE thinking that that'll be okay just this time. They played for quite awhile.... (5F)

Text 4 One winter day there were three boys. They were Chris, David and Paul. These three boys went ice skating and Chris wanted to skate on an area that said thin ice and he dared Paul to go with him.... (4F)

Characters are explicitly unaware of the state of the ice

Text 5 One day there were three boys named Tom, Jack and Peter. They were skating in a hockey place. There was a

Table 4.7

(cont.)

hole in the ice. Tom Peter and Jack didn't see the hole. So Tom skated were the hole was. He fell right into the hole.... (5F)

---

*Numbers and letters in parentheses refer to grade level and gender of author. Children's spellings and punctuation are retained. Italics are ours and are intended to call attention to relevant portions of text.

Table 4.8

Distribution of texts containing information about the state of the ice: percentage of texts at each grade level in each information category

	Status of knowledge about the state of the ice			
	unclear	explicit		
Grade		characters know	characters don't know	total explicit
3	67%	22%	11%	33%
4	67%	27%	07%	34%
5	52%	29%	19%	48%
6	37%	48%	15%	63%
7	20%	60%	20%	80%
8	35%	48%	17%	65%

Table 4.9

Suspenseful and unsuspenseful texts

Unsuspenseful texts

Text 1 Tim was ice-scating on brick pond where he met boys named Danny and Chuck. They were having a race and Tim slid over some thin ice and fell in. (5F)*

Text 2 One snowy day Tom, Charlie and Bill were playing hockey on a frozen over pond. Only Charlie wasnt very good and he fell through the ice. (5M)

Text 3 Sam, Frank and Lenny were playing hockey down in the lake. They were having alot of fun when all of a sudden the ice broke right under Frank's skate. He fell through. Sam and Lenny heard a loud noise. Then a scream for help.... (6M)

Suspenseful texts

Text 4 ...While they were skating Tom a very smart and thoughtful boy told Jim not to skate near the middle because the ice was very thin and he might go through the ice. Jim said that he would never fall through the ice and then started skating to the center of the pond. All of a sudden. crack, and Jim went through the ice.... (6F)

Table 4.9

(cont.)

Text 5 ...After skating for about 10 minutes, the sun came out and without their knowing it started to melt the ice. Bo began to skate very fast and then slid right into the sun's rays and fell threw the ice.... (6M)

Text 6 ...they started to play ice hockey. While palying Jeffrey hit the puck into the snow. "I'll go get it," he said.

"We'll wait for you here," answered Charles and James.

After searching for 2 minutes Jeffrey called "Somebody come and help me look."

"I'll go," said James.

While searching for the puck, James and Jeffrey heard a cry for help.

"Lets go see what is wrong," said Jeffrey.

When they got back on the ice, they saw Charles in a hole in the ice.... (7M)

---

*Numbers and letters in parentheses indicate grade and gender of author. Children's spellings and punctuation have been retained. Italics are ours and indicate instance of a potential suspense-generating device as well as location of information about the story crisis (i.e., point where character falls through the ice).

Table 4.10

Percentage of children at each grade level adopting each type of suspense-generating device

Grade	Type of suspense-generating device				
	premon-ition	thin ice	trouble-prone	delayed informa-ation	total
3	03	04.	00	00	07%
4	03	07	04	00	14%
5	05%	18%	02%	00	25%
6	08%	20%	00%	09%	37%
7	09%	18%	04%	21%	53%
8	02%	20%	04%	22%	48%

Chapter Five: Causal and Motivational Structure in Children's Texts

Most definitions of well-formed story structure include the notion of causal or motivational linkage. For example, Stein and Glenn, 1979, describe six components as forming the prototypical story structure: 1) setting which describes a protagonist's environment; 2) initiating event, which marks a change in the protagonist's environment; 3) internal response which describes a protagonist's goals, motives or plans in response to the initiating event; 4) an attempt in which a protagonist carries out the actions specified by the internal response; 5) a consequence which defines a protagonist's success in carrying out the attempt; 6) a reaction which describes a protagonist's response to the consequences or its future implications. As can be seen, motivational and causal linkages are specified at several points: the internal response is primarily motivational while the attempt, consequence and reaction are each causally linked to the internal response. More generally, we can see that in this framework, well-formed stories are conceived primarily as goal-directed sequences of events: one of the main components of these definitions is a protagonist who is motivated to carry out some type of planful activity.

Studies of story recall in both adults and children indicate that information about plans, motives and reactions

is less likely to be remembered than information about initiating events and their consequences (Glenn, 1978; Mandler & Johnson, 1977; Mandler, Scribner, Cole & deForest, 1980). Some have argued that while these categories may be omitted from actual recall protocols, they are nonetheless regarded by subjects as a necessary part of story structure and are omitted only because they can be readily inferred. However, results of Stein and Policastro (in press) suggest that plans and motives may not be regarded as essential to story structure after all. In this study, adult school teachers and second grade children were asked to judge whether texts which contained various combinations of story features could be classified as stories. In both groups, texts were judged to be stories even when they contained only such minimal features as a specific animate protagonist, a description of its specific activities and some identifiable temporal organization (See text one, Table 5.1) Rejected as stories were texts with inanimate protagonists, regardless of whether or not these contained a set of specific activities arranged in a causal sequence (text 2, Table 5.1) as well as texts with animate protagonists and temporal sequencing but with generalized rather than specific activities (Text 3, Table 5.1). For our present purposes, it is important to note that texts were judged to be stories if they contained animate protagonists and temporal sequencing, regardless of whether plans and goals were also described. For teachers, but not children, the presence of plans and goals made texts

seem like better stories, but inclusion of explicit motivational information was apparently not essential.

Most of this work has been conceptualized within a framework of text analysis and has addressed questions concerning the nature of a well-formed story and the role of subjects' expectations about story structure in such activities as text comprehension, production and recall. However, story recall and production have also been used to provide evidence concerning subjects' skill in constructing causal or logical relations. Piaget (1925/1955) long ago observed that early elementary age children seem to omit information about these relations from their texts and argued that these omissions are evidence of children's inability to construct such relations. Data from some recent investigations have supported Piaget's conclusions (Kuhn & Phelps, 1979; Corrigan, 1975) although data from other studies (e.g., Trabasso, Stein & Johnson, 1981) suggest that children's omissions may have been more a function of the structure of Piaget's stimuli than of children's level of cognitive development.

Taken together, these two lines of research suggest that our younger subjects may be less likely than older subjects to provide an explicit causal or motivational structure for their stories, either because this is not considered to be an essential feature of narrative or because children have difficulty constructing the requisite underlying logic. The purpose of the present set of analyses is to

determine whether, in fact, this is the case: Do younger children provide explicit causal or motivational information about the actions in their stories and if so, is it similar to the causal and motivational information in older children's texts? To what extent does the presentation of causal or motivational information appear to be a stable feature of younger children's writings? Does it appear to be essential to their concept of story?

Before going on to describe our data, however, it is important to remind the reader of the type of motivational constraints inherent in our story stimuli. The cartoons specified a course of action following the accident (which was intended to be interpreted as an initiating event). If children were to provide any motivational or causal linkages, we expected these to occur in the form of internal responses to the accident. However, it was possible that children would find other opportunities to provide motivational information and we wished to assess the extent to which children took advantage of these as well. An initial reading of the texts in our corpus revealed that children did indeed add other motivational information which could be categorized as follows: information concerning (1) why children were at the beach or frozen pond; (2) why the accident occured; (3) why the first rescue attempt failed; (4) why the second attempt succeeded; (5) why the rescue implement (coil of rope or hockey stick) happened to be available. A coding scheme

for motivational information was therefore developed which evaluated presence or absence of these post hoc categories as well as the category termed 'internal response.' (For details, see Appendix D.)

Two coders, working independently, evaluated each text for presence or absence of each type of motivational information. Coders achieved an intercoder reliability of 87% overall, with reliabilities ranging from 79% to 100%, depending on type of text and type of motivational information.

In our first set of analyses we investigated the extent to which average and above-average children at each grade level incorporated the various types of motivational information into their texts. Table 5.2 shows the percentage of children who included at least one type of motivational information at each grade level in both skating and boating stories. As can be seen, the percentage of children is fairly high, even among fourth and fifth graders. This suggests that even among our younger writers, inclusion of explicit motivational information is a fairly common feature of story writing.

Table 5.3 provides a more detailed picture of the type of motivational information included by children at the various grade levels. As can be seen, in both skating and boating stories, children were more likely to include information about why the accident occured and characters' internal response to the accident than other types of information. As children get older, they are also more likely to include

information about why characters are at the beach or the pond and (in the case of the boating story) why the first rescue attempt failed. Overall, then, there is a tendency for motivational information to be concentrated in the earlier parts of the story. Among younger children, motivational information tends to cluster around the point of crisis , involving information about why the accident occured and characters' internal response to the crisis. As children get older, the use of motivational information extends into earlier parts of the story to include information as to why characters have appeared in these settings as well.

Current theories of story structure would lead us to expect that of all types of motivational information, information about characters' internal response to the accident would be the most frequent. However, as Table 5.3 shows, this is not really the case. Although information about characters' internal response was certainly frequent, it was no more frequent than information about why the accident occured (e.g., information that the ice had melted or that a strong wave had sent the boat out to sea) or (among older children) why the characters had come to these settings.

On the whole, then, while characters' internal response to the accident is certainly an important element in these younger children's stories, it would probably be more correct to say that the younger children's use of causal and motivational information tends to cluster around the story crisis, involving

not just information about characters' plans and responses to the crisis but also causal information about how the crisis occured. In this sense, development of explicit causal and motivational linkages mirrors the development of dramatization and detailed text realizations which also make their first appearance in the crisis portion of children's texts.

But if the data in Tables 5.2 and 5.3 show that causal linkages are fairly common in children's texts (at least after the third or fourth grades), it is unclear from these data whether writers are consistent in their use of these linkages: Do they use the same type of causal linkage from one composition to the next? Our second set of analyses addresses this question.

The data come from a sample of third through eighth grade/average and above-average subjects who composed both skating and boating stories in the 1978-79 corpus. (See Table 2.9) Data for each story consist of a series of causal scores computed so that for each category of causal information, a texts was assigned a score of 1, 2, or 3 depending on whether the particular information was absent, partial or fully realized. (Criteria for determining whether information was partially or fully realized are described in Appendix D.)

In our first analysis, we were curious to know whether the total amount of causal information remained stable across writing tasks. The data consisted of the total causal score for each text, summed across all six information categories.

Scores for each age group were compared, using a repeated measure analysis of variance design, with type of story as the repeated measure. The analysis revealed main effects for both grade ($\underline{f}$ = 17.55, d.f.=5,218; ms=4.62; p=.001) and story type ($\underline{f}$=10.8; d.f.=1,218; ms=10.44; p=.02) with boating story producing more causal information than the skating story ($\bar{X}$ boating=8.52; $\bar{X}$ skating =7.94). Although Newman-Kuehls analyses revealed no significant differences at the .05 level among grade means, the data in Table 5.4 show (not surprisingly) that as children got older, they tended to produce more causal information.

Separate analyses of grade and story effects for the six different types of causal information conform to this pattern, with boating stories consistently resulting in greater amounts of each type of causal information at each grade level. One exception, however, was in the case of information about the cause of the accident where there was no significant difference across story conditions.

For the most part, then, children were not consistent in their use of particular types of causal linkages: presence of one type of linkage in one text did not predict its presence in the other.[1]

---

[1]To some extent, however, this lack of consistency may have been a function of the grade levels sampled and may reflect the fact that the children in our particular age range were just in the process of learning to produce explicit causal linkages. For $\underline{t}$-tests of data from the individual

To summarize, then, explicit causal and motivational linkages appear to be a fairly common feature of children's texts after about the third or fourth grade level. Current definitions of well-formed story structure would predict that among these, internal responses to initiating events should be especially prominent. While these were certainly common, other types of causal or motivational linkages were also frequent. This suggests that while children do apparently see the need for explicit description of the causal linkages underlying a temporal sequence of events, their notion of what constitutes an appropriate set of linkages is somewhat broader than that specified by current story structure definitions. Moreover, the data suggest that while presentation of explicit causal information is surely a feature of children's narrative strategy, the amount and type of information included in any particular story seems to depend more on its content (and perhaps on other features of the composing situations) than on any highly generalized or abstract set of content-free principles.

(footnote 1, cont.) grade levels show that while there is a consistent overall tendency for boating stories to contain more causal information than skating stories, the differences at the individual grade levels are significant only for children in the middle of our age range. (See Table 5.5) In both the youngest (third) and oldest (seventh and eighth) grades, these differences are not statistically significant.

(footnote 1, cont.) In the former case, this lack of significance may represent a floor effect, reflecting the fact that third graders produce relatively little causal information under any circumstance. In the latter case, however, the result may reflect the fact that children have become skilled enough in their use of causal information to have developed some strategies that are applicable across a wide range of situations. That the direction of the differences (regardless of their level of significance) is consistent across all age groups reinforces the notion that the amount of causal linkage in children's texts does reflect particular content and writing situations. However, the lack of significance in differences observed among our oldest subjects may point to the beginning of some fairly stable content-free strategies for using causal information in narrative texts.

Table 5.1

Types of narrative texts (from N.L. Stein & M. Policastro, in press)

Text 1 Specific animate protagonist; specific activities; temporal sequence

Alice lived down by the ocean. Everyday Alice went down by the beach. She hunted for sea shells. Then she built a sand castle. Then she took a sun bath. Then she went for a swim. Then she went home.

Text 2 Inanimate protagonist, specific actions, temporal sequence

The ball rolled down the hill. It hit the window in the house. The window broke into pieces. Rain poured through the window and flooded the room. Soon the furniture floated out leaving the room barren.

Text 3 Animate protagonist, general actions, no temporal sequence

The fox had a grey mane. He had a long silvery tail. He was quite ferocious. He lived in a cave near the woods. He collected straw and rocks for his cave. His favorite food was young rabbit. He also liked to eat freshly picked berries.

Table 5.2

Percentage of children at each grade level including at least one type of explicit motivational information in a story

	Type of story	
Grade	skating	boating
3	34%	48%
4	59%	49%
5	64%	62%
6	76%	69%
7	74%	79%
8	66%	78%

Table 5.3

Percentage of children at each grade level including each type of motivational information

Skating stories

Grade	Type of motivational information					
	1*	2	3	4	5	6
3	05%	30%	0%	07.5%	05%	19%
4	09%	53%	0%	06%	06%	49%
5	28%	56%	11%	01%	15%	51%
6	46%	60%	15%	05%	23%	42%
7	51.5%	59%	25%	06%	25%	55%
8	30%	54%	21%	06%	19%	56%

Boating stories

Grade	Type of motivational information					
	1	2	3	4	5	6
3	19.5%	44.5%	11%	06%	0%	34%
4	37%	37%	26%	06%	03%	36%
5	41%	37.5%	41%	09%	07.5%	59%
6	47%	64%	40%	11%	11%	56%
7	43%	61.5%	46%	14%	09%	74%
8	52%	53%	34%	17%	17%	69%

1= why characters are at the beach; 2= why accident occurs 3=why first rescue attempt fails; 4= why second attempt succeeds; 5= why rescue implement is at scene; 6= internal response.

Table 5.4

Mean causal score at each grade level, skating and boating stories combined

Grade	$\bar{X}$ causal score
3	6.44
4	7.12
5	8.18
6	9.59
7	9.28
8	8.88

Table 5.5

Differences between skating and boating causal scores at each grade level (skating - boating) (*t*-test for correlated samples)

Grade	*t*-score	probability	d.f.
3	-1.84	.075	30
4	-2.51	.02	28
5	-4.10	.0001	65
6	-2.11	.04	63
7	-1.28	.21	50
8	-1.7	.09	54
total sample	-5.43	.0001	295

Chapter Six: Endings: how children describe the significance of narrative events

Along with causal linkages, most definitions of well-formed story structure include the notion of story resolution or information concerning the significance of narrative events. For example, Stein & Glenn, 1979, include as a final component in their description of well-formed story structure an element termed "story resolution" which provides information about a protagonist's response to the outcome of an initiating event, its future or longterm consequences or some general lesson or moral to be drawn from the proceedings.

Studies of story recall in both children and adults indicate that while the consequences of an initiating event are generally well recalled, information concerning characters' responses to the outcome or its longterm consequence is not. (Mandler & Johnson, 1977; Glenn, 1978) Moreover, one study of narrative structure in elementary children's spoken stories indicates that it is rarely present in these productions. (Stein & Glenn, 1982) By contrast, analyses of anecdotes in conversational discourse of preschool and elementary age children indicate that in this situation children often convey to their listeners information about the significance of narrative events. (Umeker-Sebeok, 1979; Menig-Peterson & McCabe, 1977) This suggests that even very young children

have some appreciation of the way in which statements of significance are constructed, even if they fail to understand their role in well-formed story structure.

Given these studies, we would expect to find few statements concerning the significance of events in the narrative writings of elementary age children although they might begin to occur more frequently in the texts of our older subjects. The present analyses are intended to determine whether in fact these expectations are correct: Do story resolutions or statements of significance occur in the texts of younger writers? If so, to what extent are they similar to the types of story resolutions provided by children in the junior high school years?

An initial reading of the texts in our 1978-79 rhetoric corpus indicated that if children included any type of information about the significance of events, they did so in one of the following ways: (1) they described characters' feelings about the rescue (text 1, Table 6.1); (2) they described the short-term consequences of the accident (indicating, for example, that the skating victim went home to warm up) (text 2, Table 6.1); (3) they described the long-term consequences (indicating for example, that the skating victim became ill) (text 3, Table 6.1); or (4) they drew an explicit moral or lesson (text 4, Table 6.1). Two other types of texts occured as well. In one, (5) children concluded with information about what happened to characters after the accident, but made no attempt to link these activities to any consequences of the preceding events. Unlike children who

tell us that characters were cold, frightened or ill, these writers proceed as if nothing untoward had happened, often telling us that characters were happy and having a wonderful time (text 6, Table 6.1). Finally (6) some children produced texts that contained no concluding statements at all, telling us only that the victim was pulled from the ice or pulled to shore (text 5 , Table 6.1).

Based on this initial reading, a post hoc scheme for analyzing children's story endings was developed. (For details, see Appendix E) Two coders, working independently, attempted to assign all stories produced by average and above-average writers in the 1978-79 rhetoric sample to one of the six ending categories described above. Coders achieved an intercoder reliability of 86%, with reliabilities ranging from 100% to 72%, depending on the type of text and type of ending category.

In our first analysis, we investigated the extent to which children at the different grade levels provided various types of endings for their texts: did they provide
(categories 1-4)
coherent story resolutions/ information about unrelated
(category 5) (category 6)
subsequent activities/or no concluding information at all/.
As can be seen from Table 6.2, the majority of children at all ages did provide some type of coherent resolution. Moreover, children in grades three through five were about as likely to provide coherent resolutions as children in grades six through eight.

Table 6.3 shows the percentage of children at each grade level who provided each type of story resolution. (In many cases, children provided more than one type of resolution.) As can be seen, the two sets of stimuli elicited somewhat different types of story resolutions: In response to the skating stimuli, writers at most grade levels were as likely to convey information about characters' emotional reactions to the crisis as they were information about long- or short-term consequences. In the boating stories, however, writers at every grade level were more likely to convey information about characters' emotional responses than they were about various other consequences. In both stories and at all grade levels, children were least likely to provide readers with a moral or lesson.

In a second analysis, we compared the ending information provided by children producing stories in both conditions. (See Table 2.9) For this, we assigned each text a numerical ending score, based on the amount and type of information provided: texts were given one point for each type of coherent resolution infcrmation provided but were given no points if they contained only unrelated information (category 5) or no concluding information at all (category 6). The range of possible scores was thus 0-4. Ending scores for texts in each story condition were then analyzed using

a repeated measures analysis of co-variance design, with type of story as the repeated measure and number of words per text as the co-variate. Results show no significant effect for grade level but do show a significant effect for story type (f=3.98; d.f.=1, 128; m.s.= 2.02; p=.05), with skating stories resulting in significantly higher ending scores ($\bar{X}$ skating=1.21; $\bar{X}$ boating= 1.07)

OVerall, then, the data suggest that amount and type of story resolution depends on story content and specific writing situation, a conclusion similar to that obtained in analyses of causal and motivational information. Unlike the causal data, however, these analyses reveal no significant grade differences: at most grade levels in both story conditions the majority of children provided some type of coherent resolution for their stories. This suggests that by middle elementary years, resolutions are part of most children's story-writing strategy.

Table 6.1

Examples of types of story endings

Type 1 Description of characters feelings about accident's outcome

It was around December when it happened. three boys were going to practice for a hockey game. They were about to start whe Bob did some fancy twirling and fell in the ice. Doug and Steve got nervous. They ran to a tree and broke off a branch. When they gave it to Bob it broke. By now Bob was terrified. Steven got one of the hockey sticks and pulled Bob out with Doug holding him.

Bob missed the hockey game but he was glad he was alright. (5F)*

Type 2 Short-term consequences of the accident

One day 3 boys Paul, Chris and Joe went ice scating. They went on March 4, 1969. They went on a frozen lake in Massachusetts.

When they got to the lake Chris said, "The ice isn't very thick."

"It's okay," said Paul.

So they skated and skated and all of a sudden Chris and Joe heard:

"Help," screamed Paul, "the ice broke.

"Chris let's go get a twig," (So they did) said Joe.

It didn't work.

"Let's pull him out with the hockey stick," said Chris, "It's the only thing left."

Table 6.1

(cont.)

It worked.

When they got him out they went home. What a story they told their mothers! (5M)

Type 3 Long-term consequences

One day Jason, Jesse and Steven went skating in central park. They went realey earley so no one else was there. Jason did a trick and the ice broke. Steven and Jessee were panacked. They broke off a branch and handed it to him but the branch broke. They got a rather large log but it broke also. They there hockey stick and handed it to him and he was pulled out. Then the boys went home. Jason was sick for the rest of that week with the flew. (5M)

Type 4 Story moral or lesson

One day three boys the age of 12 where playing ice hockey. they egnored the sign saying DANGER THIN ICE. They played for quite awhile when John said look at me skate and fell wright into a crack the other boys saw this they heard him screaming help! help! Bob & Mike said hold on a minute and returned with a stick & said hold on we will pull you out. He held on but all of a sudden crash the stick broke in half help me he yelled! Bob quickly ice skated toward the hockey stick & said Mike hold on too me & pull they

Table 6.1

(cont.)

pulled & got him out quickly & safely! The moral of the story is dont play where youre not supposed to. (5M)

Type 5 No ending; story ends with the information that the child has been rescued

One day on a frozen pond there were 3 boys. There names were Peter, Craid and Harvey. They loved hockey so they had a hockey game. Then they decided to take a brake. But all of sudden, Harvey fell right throug the ice into the freezing water. Craid and Peter were in shock, there was a nearby tree they brooke a branche off of the tree, they brought it over to Harvey but the branch brooke, Harvey was to heavy. So Peter thout of the hockey sticks, Craig raced over and picked up a hockey stick and brought it over to Harvey they both pulled so hard that they fell flat on the ice the second time they pulled and got Harvey out.

Type 6 Ending that seems irrelevant to the events surrounding the accident

One day 3 boys decided to go Ice skating. They went down to the frozen lake & started skating. All of a sudden one of the boys fell in the ice. His friends went to help him but they couldnt pull him out. Then they saw a tree they went over and pulled a branch off. They told their friend to pull on the other end of the stick. He pulled as hard

Table 6.1

(cont.)

as he could but the stick broke. Then the friends saw a hockey stick. They told the boy in the ice to pull on it. He pulled & pulled and finally they got him out. The three friends then went out to lunch. It was the best day ever. (6F)

---

*Numbers and letters in parentheses indicate grade and gender of author. Spellings and punctuation of children have been retained. Italics are ours and indicate relevant portions of text.

Table 6.2

Percent of subjects at each grade level showing coherent resolutions, irrelevant resolutions, or no concluding information

Skating stories

Grade	Type of resolution: no resolution	irrelevant resolution	coherent resolution
3	32%	12%	56%
4	27%	13%	60%
5	34%	18%	48%
6	13%	23%	54%
7	08%	17%	75%
8	33%	11%	56%

Boating stories

Grade	Type of resolution: no resolution	irrelevant resolution	coherent resolution
3	42%	10%	48%
4	32%	07%	61%
5	35%	07%	58%
6	23%	15%	62%
7	09%	09%	82%
8	27%	07%	76%

Table 6.3

Percent of subjects at each grade level producing each type of coherent story resolution*

Skating Stories

Grade	type of coherent story resolution: characters' feelings	short- & long-term consequences	story moral
3	39%	34%	11%
4	32%	30%	15%
5	27%	21%	13%
6	52%	46%	20%
7	69%	34%	24%
8	53%	18%	13%

Boating Stories

Grade	type of coherent story resolution: characters' feelings	short- & long-term consequences	story moral
3	47%	14%	08%
4	49%	12%	03%
5	56%	21%	10%
6	45%	23%	17%
7	79%	30%	13%
8	71%	17%	08%

*Many subjects produced more than one type of coherent story resolution per text.

Chapter Seven: Rhetorical Complexity in Relation to Other Measures of Children's Developing Literacy Skills

In previous chapters we have charted certain age-related changes in children's narrative rhetoric, paying particular attention to changes in children's use of dramatization, expository description, causal structure and commentary on the significance of story events. In the present chapter, we consider relations among these various aspects of narrative rhetoric and other text and subject variables. In our first set of analyses, we examine the relation between various measures of rhetorical complexity and such other measures of children's developing literacy as grade, reading level and current editing and writing skill. We then examine the relative contributions of various measures of rhetorical complexity to story length and content. Finally, we examine the stability of these relations across two separate writing sessions.

A number of subject and text variables are entered into these analyses. Subject variables include author's gender, grade level, current reading level (as determined by a subject's most recent standardized reading score), and teachers' estimates of subjects' current writing skill (see Chapter Two). Subjects' performance on an editing task (described in Miller, Bartlett, Hirst, 1982[1]) provides

[1]This task required that children edit eight short paragraphs, each containing some problem in text coherence. These involved ambiguous co-referencing or a missing subject or predicate. Editing tasks were administered to all children in the study at a separate session after all writing tasks were completed.

an index of current editing skill, with possible scores ranging from 0-8.

Text variables include story length (number of words per text), story content (skating or boating events), and five measures of rhetorical complexity. Choice of measures is based on our analyses of age-related changes in rhetorical complexity, as described in Chapters Three through Six and include:

1)amount of direct quotation, measured as the number of quotational "turns" per text (see Appendix B). Texts were scored according to the number of different "turns," with texts receiving a score of 0 if no turns occured, 1 if there was one turn, 2 if there were two to four turns, and 3 if there were more than four.

2)number of dramatization features at the point of crisis. Four features were tallied: use of direct quotation; information about characters thoughts or feelings; use of verbs that contain as part of their meaning the notion of haste, urgency or fear; and use of an adverbial to indicate sudden onset (see Appendix C). Stories were given a score of 0 if no features occured, 1 if one feature occured, 2 if two features occured and 3 if more than two features occured.

3)amount of causal information, as determined by presence of any of the features identified in Appendix D. Texts received a score of 0 if no causal information occured, 1 if one causal item occured, 2 if two items occured and 3 if more than two were present.

4) number of comments concerning the significance of story events, as determined by the presence of any of the features identified in Appendix E. Texts received a score of 0 if no features occured, 1 if one feature occured, 2 if two different features occured and 3 if more than two occured.

5) total rhetorical complexity, computed as the sum of the four separate indices of rhetorical complexity (items 1 - 4, above).

In our first set of analyses, we use multiple regression techniques to examine the effects of text and subject variables on various measures of rhetorical complexity. Looking first at a sample of third through eighth grade average and above-average writers, we find that while story length always makes a large and significant contribution to the prediction of rhetorical complexity, certain subject variables also make significant contributions. (Table 7.1) Moreover, the pattern of contributing subject variables differs for the skating and boating texts. Thus, while grade is the only subject variable contributing to the prediction of rhetorical complexity in the skating corpus, author's gender replaces grade as a contributing variable in the boating corpus, with female gender being associated with greater complexity.

Analyses of subject variables in a sample of fifth through seventh grade above- and below-average writers results in a somewhat different pattern of predictor variables.

(Table 7.2) Generally, the variables predict more of the variance in rhetorical complexity of the skating stories and less of the variance in boating stories than was the case in the third through eighth grade sample. Moreover, grade disappears as a predictor variable in the skating stories, a finding which is not unexpected given the narrower grade range of this sample (5-7 vs. 3-8). Writing level emerges as a predictor variable for two of the rhetorical measures in the skating corpus (amount of causal linkage and statements of significance) but predicted none of the boating rhetoric. Reading level predicted amount of crisis dramatization in skating stories and amount of causal information in the boating corpus. Author's gender remained a predictor of boating rhetoric, with female gender once again associated with greater rhetorical complexity. Gender also predicted amount of crisis dramatization in the skating corpus Finally, contrary to our expectations, story length failed to predict amount of causal information in the boating corpus.

Taken together, Tables 7.1 and 7.2 indicate a somewhat different pattern of subject variables as predictors of rhetoric in the two stories, with variables associated with amount of schooling or level of writing skill serving as frequent predictors of rhetoric in the skating corpus and author's gender emerging as a frequent predictor of rhetoric in the boating corpus. The reader will recall that

all characters in the boating story were female while all characters in the skating story were male. One possible explanation for the effects of gender in the boating corpus may lie in children's differing responses to the two writing situations: while boys and girls may write with equal rhetorical complexity about male characters, boys may have difficulty producing complex rhetoric when asked to write about girls. In any case, it is clear that rhetoric produced in response to the skating stimuli was more likely than boating rhetoric to be predicted by such indices of children's developing literacy as grade and teachers' estimates of writing skill. We can also speculate that measures of rhetorical complexity in the skating corpus may provide somewhat better indices of children's current level of literacy.

A second set of analyses concerns the extent to which rhetorical complexity contributes to story length. We know from previous analyses of these stories that as writers become older and more skilled, the length of their stories increases. (Chapter Two; see also Bartlett, in press) What we don't know, however, is the extent to which use of specific rhetorical features contributes to this increase. Texts could conceivably increase in length without increasing in rhetorical complexity. Observed increases may be due to other factors such as increasing fluency or syntactic complexity or even an increasing social maturity that may manifest as an increase in the amount of social interaction portrayed in text. The

purpose of the present set of analyses is to assess the contribution of specific rhetorical features to story length relative to the contributions of certain subject variables which index more general aspects of children's developing literacy and social maturity.

In our first analysis, we assess the relative contributions of author's gender, grade, reading level, editing skill and use of four rhetoric variables (amount of quotation, dramatization at the point of crisis, causal linkage and statements of significance) to the length of third through eighth grade average and above-average skating and boating stories. As can be seen in Table 7.3, rhetoric variables made significant contributions to the prediction of story length in both types of stories even when such subject variables as grade and editing skill are included in the regression equations. This suggests that increases in length are not simply due to age-related increases in fluency or social complexity of story content, but may also reflect specific changes in rhetoric. However, Table 7.3 also shows that the relative contributions of rhetoric and subject variables differed in the two story conditions: While grade accounts for more of the variance in length of boating stories than any rhetoric variable (except perhaps amount of quotation), three rhetoric variables (statements of significance, causal linkage and amount of quotation) account for more of the variance in skating story length than grade or any other subject variable. This suggests that

rhetorical complexity may contribute relatively more to the composition of the skating than to the boating stories.

Analysis of texts produced by fifth through seventh grade above- and below-average writers resulted in a lessening of the contribution of rhetoric variables. (Table 7.4) For one thing, the number of rhetoric variables making significant contributions decreased for both types of stories. Moreover, the relative contribution of grade also increased. The stories continued to differ, however, in the relative importance of subject and rhetoric variables in the regression equations. While writing level and author's gender contributed significantly to the prediction of boating story length, grade was the only subject variable to contribute to the prediction of skating story length. This finding is all the more striking when one recalls results of Bartlett, in press (see also Chapter Two), who found that grade and writing skill level had independent and significant effects on length of both types of stories. Especially in the case of skating stories, however, the present analysis indicates that differences in length that were accounted for by a general literacy variable (writing level) may be better accounted for by specific measures of rhetorical complexity. This suggests, once again, that rhetorical considerations may have played a more important role in the composition of the skating stories than such other aspects of composing skill as might be indexed by such subject variables as reading and writing level

and editing skill. We might also note that author's gender made an independent contribution to the prediction of boating story length. It will be recalled that gender contributed to measures of rhetorical complexity in both the third through eighth and fifth through seventh grade samples (Tables 7.1 and 7.2). The fact that gender continues to contribute to the prediction of length even after measures of rhetorical complexity are entered into the equation suggests that (for the 5-7 above- and below-average writers, at least) gender contributes to other aspects of length as well, perhaps affecting such aspects of content as amount of social interaction among characters or amount of descriptive material.

A final set of analyses concerns the question of generalizability: to what extent do variables observed in one writing situation predict performance in a second? Are rhetoric variables observed in one story good predictors of the length or rhetorical complexity of a story written at another time? Is their relation to subject variables similar in the two conditions or does the relation change when variables are used to predict length or rhetorical complexity in a second story?

In one analysis, we examine the extent to which rhetoric variables observed in one story predict length of a second story in a sample of average and above-average third through eighth grade writers who produced both skating and boating stories. Table 7.5 shows the extent to which length of each

story is predicted by rhetoric features of the other as well as by subject variables common to the two. As can be seen, skating story variables predict more of the variance in length of the boating stories (R^2=.49) than the reverse (R^2=.36). Moreover, while all four of the skating story rhetoric measures make significant contributions to the prediction of boating story length, only two boating story measures (amount of quotation and causal linkage) predict skating story length. Finally, when we compare relative contributions of subject variables in the two equations, we find beta coefficients to be fairly similar, with betas for editing skill at .11 and .13 and for grade level at .36 and .30 in equations predicting length of skating and boating stories respectively.

Not unexpectedly, rhetoric measures taken from one story predicted more of their own story's length than they did the length of a second story. (Table 7.6) However, the relation of predictor subject variables to rhetoric variables did differ somewhat under the two conditions. For while the beta coefficients for editing skill did not differ in the two types of equations, the betas for grade level show some interesting variations: Although betas for grade level in equations that predict boating story length were the same, regardless of whether they appeared in equations with rhetoric variables from the boating (grade beta= .31) or skating (grade beta=.30) stories, betas for grade level

in equations that predict skating story length did differ, depending on whether they appeared in equations with rhetoric variables from the boating (grade beta =.36) or skating (grade beta =.21) stories. As can be seen in Table 7.6, the relative contribution of grade to skating story length was considerably higher when used in conjunction with rhetoric variables from the boating story. This pattern of results suggests that while rhetoric measures from the skating story are about as good as measures from the boating story in predicting boating story length, boating measures may be less generalizable or less typical of a subject's usual narrative rhetoric.

Analyses of fifth through seventh grade above- and below-average writers' texts reveal a very different pattern of results. (Table 7.7) As can be seen, none of the rhetoric variables predict story length. In each case, story length was predicted by a combination of three subject variables: grade level, gender and writing level. These results are unexpected, since two boating rhetoric variables (amount of quotation and dramatization at the point of crisis) predicted boating story length and three skating variables (amount of quotation, causal information and dramatization at the point of crisis) predicted skating story length (Table 7.4). Moreover, the pattern of subject variables is also difficult to explain on the basis of other analyses, since gender and writing level

did not contribute to the prediction of skating story length in conjunction with skating rhetoric variables (Table 7.4). At present we are unable to account for these results.

In a final set of analyses we examine the extent to which rhetoric measures of one story predict the total rhetoric score of the other. Data from the sample of third through eighth grade average and above-average writers reveal story differences, with rhetoric measures from the skating story better able to predict total rhetoric score of the boating stories (R^2=.31) than the reverse (R^2=.105). Moreover, while only one rhetoric measure from the boating story (amount of quotation) contributes to the prediction of the skating story's total rhetoric score, all four skating measures contribute to the prediction of the boating story's score. (Table 7.8) Data from the sample of fifth through seventh grade above- and below-average writers show a somewhat different pattern, with only one measure of skating rhetoric (amount of quotation) contributing to the prediction of boating stories' total rhetoric score. (Table 7.9) At the moment, we are unable to account for the different patterns observed in the two samples.

Taken together, the results of these analyses point to several conclusions. For one thing, it is clear that rhetorical complexity makes a significant contribution to the increase in story length observed in grades three through eight and that this contribution is independent of the contributions of such subject variables as author's gender, years of schooling, general level of literacy (as indexed by reading and writing level) and editing skill. This suggests that the effect of knowledge of narrative rhetoric (as indexed by our four measures of rhetorical complexity) may be somewhat independent of the effect of other literacy skills (as indexed by teachers' judgments of current writing ability, standardized reading scores and performance on an editing task). The data concerning the stability and generalizability of children's narrative rhetoric are more difficult to interpret, for while rhetoric produced in one situation (the skating story) predicted length and rhetorical complexity in another (the boating story), the reverse was not true. Moreover, the relatively idiosyncratic nature of children's boating rhetoric is underscored by the finding that while various features of the skating story rhetoric were predicted by subject variables likely to index children's general level of literacy (i.e., grade and writing level), boating rhetoric was predicted only by author's gender, a variable whose relation to level of literacy is more difficult to establish.

At the moment, it is unclear why these differences should occur, but thefact that they did has important implications for writing assessment since it demonstrates the significant effects of apparently quite subtle differences in elicitation procedures on the representativeness and reproducability of the narrative rhetoric likely to be obtained.

Table 7.1

Forward stepwise regression analyses of rhetorical complexity, skating and boating stories produced by 3-8 grade subjects of average and above-average writing skill

Predictor text variable: story length

Predictor subject variables: gender, grade level, reading level, editing skill

Skating stories

Dependent var.	Predictors	Cum R^2	beta coeff.	f-to-remove	d.f.	p
1*	words	.54	.73	329.41	1,284	***
2	words	.27	.52	106.76	1,284	***
3	words	.23	.42	49.77	2,283	***
	grade	.24	.12	4.4		**
4	words	.17	.30	24.72	2,283	***
	grade	.22	.24	16.6		***
5	words	.20	.51	73.35	2.283	***
	grade	.22	.13	4.69		**

Table 7.1

(cont.)

Boating stories

Dependent var.	Predictors	Cum R^2	beta coeff.	f-to-remove	d.f.	p
1	words	.41	.62	172.17	2,269	***
	gender	.42	-.11	4.99		***
2	words	.27	.52	100.97	1,270	***
3	words	.18	.42	58.04	1,270	***
4	words	.10	.21	9.23	2,269	***
	gender	.13	-.20	8.91		***
5	words	.10	.29	25.29	2,269	***
	gender	.12	-.12	4.50		**

---

*Dependent variables:
1=total rhetoric score
2=amount of direct quotation
3=amount of dramatization at the point of crisis
4=amount of causal information
5=number of statements concerning significance of events

**probability is between .05 and .01
***probability is less than .01

Note: Only predictor variables with f-to-enter at a .05 or less level of significance are entered into the regression equations

Table 7.2

Forward stepwise regression analyses of rhetorical complexity, skating and boating stories produced by 5-7 grade subjects of below- and above-average writing skill

Predictor text variable: story length

Predictor subject variables: gender grade level, reading level, writing level, editing skill

Skating stories

Dependent var.	Predictors	Cum R^2	beta coeff.	f-to-remove	d.f.	p
1*	words	.55	.74	129.00	1,105	***
2	words	.35	.60	58.4	1,105	***
3	words	.215	.30	9.6	3,103	***
	reading	.26	.25	7.12		***
	gender	.29	-.18	4.10		**
4	words	.26	.45	27.76	2,104	***
	writing	.30	.20	5.57		***
5	words	.17	.47	26.72	2,104	***
	writing	.21	.21	5.36		***

Table 7.2
(cont.)

Dependent var.	Predictors	Cum R^2	beta coeff.	f-to-remove	d.f.	p
1	words	.37	.57	55.87	2,111	***
	gender	.40	-.17	4.96		***
2	words	.22	.47	31.18	1,112	***
3	words	.23	.44	27.23	2,111	***
	gender	.26	-.17	4.21		**
4	reading	.075	.27	9.21	2,111	***
	gender	.11	-.18	4.03		**
5	words	.09	.30	11.31	1,112	***

---

*Dependent variables:
1-total rhetoric score
2=amount of direct quotation
3=amount of dramatization at the point of crisis
4=amount of causal information
5=number of statements concerning significance of events

**probability is between .05 and .01
***probability is less than .01

Note: Only predictor variables whose f-to-enter is at a .05 or less level of significance are entered in the regression equations

Table 7.3

Forward stepwise regression analyses of story length, skating and boating stories produced by 3-8 grade subjects of average and above-average writing skill

Predictor text variables: amount of direct quotation, amount of dramatization at the point of crisis, amount of causal information, statements concerning significance of events

Predictor subject variables: gender, grade level, reading level, editing skill

Dependent var.	Predictors	Cum R^2	beta coeff.	f-to-remove	d.f.	p
		Skating stories				
words	quotations	.27	.29	38.52	6,279	**
	causal info.	.44	.24	31.7		**
	significance	.51	.29	52.81		**
	grade level	.57	.21	22.25		**
	dramatization	.59	.18	15.06		**
	editing skill	.60	.09	4.86		**
		Boating stories				
words	grade	.30	.31	41.89	6,265	**
	quotes	.44	.30	37.71		**
	causal info.	.48	.17	14.35		**
	dramatization	.50	.16	11.42		**
	editing skill	.52	.12	7.02		**
	significance	.53	.115	6.57		**

**probability is less than .01

Note: Only predictor variables with f-to-enter at a .05 or less level of significance are entered into the regression equations

Table 7.4

Forward stepwise regress .ion analyses of story length, skating and boating stories produced by 5-7 grade subjects of below- and above-average writing skill

Predictor text variables: amount of direct quotation, amount of dramatization at the point of crisis, amount of causal information, statements concerning the significance of events

Predictor subject variables: gender, grade level, reading level, writing level, editing skill

Skating stories

Dependent var.	Predictors	Cum R^2	Beta coeff.	f-to-remove	d.f.	p
words	quotations	.36	.39	34.47	4,102	**
	grade level	.55	.33	24.93		**
	causal info.	.63	.29	21.04		**
	dramatization	.65	.16	5.76		**

Boating stories

words	grade	.32	.46	46.12	5,108	**
	quotations	.44	.23	10.72		**
	writing level	.51	.20	8.24		**
	dramatization	.54	.18	5.81		**
	gender	.56	-.14	4.13		**

**probability is less than .01

Note: Only predictor variables with f-to-enter at a .05 or less level of significance are entered into the regression equations

Table 7.5

Forward stepwise regression analyses of story length using rhetoric measures from one story to predict length of a second story

Sample: skating and boating stories produced by 3-8 grade subjects of average and above-average writing skill

Predictor subject variables: gender, grade level, reading level, iting skill

Skating stories

Predictor text variables: amount of direct quotation, amount of dramatization at the point of crisis, amount of causal information, statements concerning the significance of events, as computed from these subjects' boating stories

Dependent var.	Predictors	Cum R^2	Beta coeff.	f-to-remove	d.f.	p
skating words	grade	.26	.36	35.24	4,220	**
	boating quotes	.33	.27	22.85		**
	" causal	.35	.14	6.02		**
	editing	.36	.11	4.07		**

Table 7.5
(cont.)

Boating stories

Predictor text variables: amount of direct quotation, amount of dramatization at the point of crisis, amount of causal information, statements concerning the significance of events, as computed from these subjects' skating stories

Dependent var.	Predictors	Cum R^2	Beta coeff.	f-to-remove	d.f.	p
boating words	grade	.30	.30	26.84	6,218	**
	skating quote	.37	.18	8.79		**
	" causal	.43	.23	18.53		**
	editing	.45	.13	8.02		**
	skating drama.	.47	.17	8.15		**
	" sign.	.48	.12	5.51		**

**probability is less than .01

Note: Only predictor variables with f-to-enter at a .05 or less level of significance are entered into the regression equations

Table 7.6

Comparison of beta coefficients from equations in which rhetoric measures predict length of their own stories and length of another story

Skating stories

Dependent var.	Equations in which text variables are computed from skating stories (Table 7.3) variable	beta coefficient	Equations in which text variables are computed from boating storeis (Table 7.5) variable	beta coefficient
skating words	grade	.21	grade	.36
	skating quotes	.29	boating quotes	.27
	skating causal	.24	boating causal	.14
	editing	.09	editing	.11
	skating sign.	.29		
	skating drama.	.18		
	R^2=.60		R^2=.36	

Boating stories

Dependent var.	Equations in which text variables are computed from boating stories (Table 7.3) variable	beta coefficient	Equations in which text variables are computed from skating stories (Table 7.5) variable	beta coefficient
boating words	grade	.31	grade	.30
	boating quotes	.30	skating quotes	.18
	boating causal	.17	skating causal	.23
	editing	.12	editing	.13
	boating drama.	.16	skating drama	.17
	boating sign.	.115	skating sign.	.12
	R^2=.53		R^2=.48	

Table 7.7

Forward stepwise regressi analyses of story length using rhetoric measures from one story to predict length of a second story

Sample: skating and boating stories produced by 5-7 grade subjects of below- and above-average writing skill

Predictor subject variables: gender, grade level, reading level, writing level, editing skill

Skating stories

Predictor text variables: amount of direct quotation, amount of dramatization at the point of crisis, amount of causal information, statements concerning the significance of events, as computed form these subjects' boating stories

Dependent var.	Predictors	Cum R^2	Beta coeff.	f-to-remove	d.f.	p
skating words	grade	.275	.495	38.73	3,88	**
	gender	.40	-.30	12.88		**
	writing level	.45	.22	7.24		**

Table 7.7
(cont.)

Boating stories

Predictor text variables: amount of direct quotation, amount of dramatization at the point of crisis, amount of causal information, statements concerning the significance of events, as computed from these subjects' skating stories

Dependent var.	Predictors	Cum R^2	Beta coeff.	f-to-remove	d.f.	p
boating words	grade	.26	.48	39.08	3,88	**
	writing level	.41	.31	15.23		**
	gender	.48	-.28	12.38		**

**probability is less than .01

Note: Only predictor variables with f-to-enter at a .05 or less level of significance are entered into the regression equations.

Table 7.8

Forward stepwise regression analyses of total rhetoric scores using component rhetoric measures obtained from one story to predict total rhetoric score of a second story

Sample: skating and boating stories produced by 3-8 grade subjects of average and above-average writing skill

Predictor subject variables: gender, grade level, reading level, editing skill

Skating stories

Predictor text variables: amount of direct quotation, amount of dramatization at the point of crisis, amount of causal information, statements concerning the significance of events, as computed from these subjects' boating stories

Dependent var.	Predictors	Cum R^2	Beta coeff.	f-to-remove	d.f.	p
skating total rhetoric score	boating quotes	.08	.27	17.18	2,222	**
	editing	.105	.15	5.76		**

Table 7.8
(cont.)

Boating stories

Predictor text variables: amount of direct quotation, amount of dramatization at the point of crisis, amount of causal information, statements concerning the significance of events, as computed from these subjects' skating stories

Dependent var.	Predictors	Cum R^2	Beta coeff.	f-to-remove	d.f.	p
boating total rhetoric score	boating causal	.17	.15	5.9	5,219	**
	boating quotes	.22	.21	9.33		**
	boating dramat.	.27	.22	9.95		**
	grade	.29	.17	7.14		**
	boating sign.	.31	.12	4.13		**

**probability less than .01

Table 7.9

Forward stepwise regression analyses of total rhetoric scores using component rhetoric measures obtained from one story to predict total rhetoric score of a second story
Sample: skating and boating stories produced by 5-7 grade subjects of below- and above-average writing skill
Predictor subject variables: gender, grade level, reading level, writing level, editing skill

Skating stories

Predictor text variables: amount of direct quotation, amount of dramatization at the point of crisis, amount of causal information, statements concerning the significance of events, as computed from these subjects boating stories

Dependent var.	Predictors	Cum R^2	Beta coeff.	f-to-remove	d.f.	p
skating total rhetoric score	gender	.16	-.32	12.17	3,88	**
	grade	.27	.29	10.16		**
	boating quotes	.32	.22	5.59		**

Boating stories

Predictor text variables: amount of direct quotation, amount of dramatization at the point of crisis, amount of causal information, statements concerning the significance of events, as computed from these subjects' skating stories

Dependent var.	Predictors	Cum R^2	Beta coeff.	f-to-remove	d.f.	p
boating total rhetoric score	gender	.17	-.33	12.94	3,88	**
	reading level	.28	.30	11.87		**
	skating quotes	.33	.25	7.35		**

** probability is less than .01

Chapter Eight: The effects of various narrative voice constraints on coherence and complexity of children's narratives

The research to be reported in this chapter concerns age-related changes in children's ability to sustain a narrative point of view under conditions of varying complexity. Its purpose is to examine the effects of different situational constraints (including voice and content constraints) on coherence and complexity of narratives written by children in grades three through six.

Teachers and evaluators of children's writing seem to agree that the ability to develop and sustain a narrative voice is an important aspect of writing development. (e.g., Moffett, 1968; Britton et al, 1975) The skill is viewed as essential in its own right but also as an important index of children's growing social development, particularly their capacity to appreciate the ideas and feelings of others. These social skills are viewed by many as fundamental to writing progress since they are thought to underly students' sensitivity to audience and hence their ability to engage in effective communication.

But while current theories of communication and socialization have emphasized the importance of students' skill in maintaining various points of view, developmental research suggests that this skill may not be well developed until at least the end of the elementary years. Piaget has argued that children in the middle and upper elementary

grades are still likely to have difficulty coordinating information from several different frameworks or perspectives since they may have a tendency to "center" on one while losing sight of the other. (Piaget & Inhelder, 1969; Laurendeau & Pinard, 1970; Flavell et al, 1969) It is not hard to imagine that this would lead to difficulties composing narratives from an invented character's point of view, since authors must differentiate their own knowledge of events from that available to the narrating "voice" and maintain that differentiation throughout the many, often difficult activities of composition. Under the circumstances, one might expect that as content becomes more complex, children might have difficulty maintaining a differentiated point of view and might tend to lapse into an "ego-centric" simplification, perhaps one in which the narrative voice begins to assume a stance more or less identical to that of the author. Similarly, if (as Piaget supposed) maintaining a differentiated point of view requires considerable cognitive effort, then one might also expect that maintenance would result in simplification of other aspects of composition such as syntax, vocabulary, cohesion or content.

The development of skill in maintaining different narrative perspectives has received relatively little systematic attention. Children's ability to sustain a narrative point of view in simple "expressive" discourse has been assessed in several of the exercises reported by the National Assessment of Educational Progress in writing. (NAEP, 1978; Klaus et al, 1979) For example, in the 1973-74

assessment, nine year olds were asked to pretend to be a pair of tennis shoes and to tell what the shoes might think and feel as they are about to be picked up by their owner. Seventy-four percent of the nine year olds demonstrated an appropriate narrative voice by referring to the tennis shoes consistently in the first person and 56% were able to incorporate a fair amount of detail concerning a relationship between shoe and child. This suggests that by about fourth grade, the majority of children are able to sustain a consistent narrative voice in simply structured ("expressive") text. However, it is unclear how children in this age range might respond to more demanding situations that stipulate a more complex content or more complex relationships among various characters. Developmental research suggests that as the situation becomes more cmoplex, elementary age children might have difficulty maintaining narrative coherence. As well, we might expect to find inconsistencies in narrative voice or a tendency to simplify story content.

The experiment to be reported in this chapter is designed to evaluate the effects of more complex narrative situations on the coherence and content of children's stories. It compares content, consistency and coherence in situations where children must write either from their own (author's) point of view or from the point of view of a story character. It compares, as well, situations in which children write from the point of view of characters who have full knowledge of story events with situations in which children write from the point of view of characters whose knowledge is only partial.

As in our previous studies, children write narratives about events pictured in two cartoons. In this experiment, half the subjects at each grade level are asked to write from their own (author's) point of view and half from the point of view of a designated (focal) character. Story elicitation was designed so that each subject wrote one text that focused on events befalling a character with full knowledge of the story action and the other on events befalling a character whose knowledge was only partial.

Methods

Subjects consisted of 159 third through sixth grade students from sixteen classrooms in two New York City Public schools.[1] At each grade level there were 20 subjects who wrote both stories in a character's voice and 20 who wrote in their own (author's) voice, except at the sixth grade where only 19 subjects wrote in their own (author's) voice. (See Table 8.1) To insure that subjects at each grade

---

[1] In all, tasks were administered to a total of 446 children:

grade	number of classrooms	total number of Ss
3	4	116
4	4	125
5	5	133
6	3	72

Subjects were randomly selected from the pool of eligible participants at each grade level.

level were comparable in current writing skill, we obtained teacher evaluations and selected our samples so that half at each grade in each condition were judged by their teachers to be average in current writing skill and half, above-average. To insure that children were at least roughly comparable in other literacy skills, we included in our sample only children who were reading on grade level or above according to their most recent standardized reading test.[1]

---

[1]This sample enables us to test hypotheses concerning age-related differences in children's ability to sustain a narrative voice. Our original design called for us to investigate differences between more and less skilled writers at each grade level as well. For this we intended to compare performance at each grade level of 15 above-average and 15 below-average writers who were roughly comparable in other literacy skills. To insure comparablity, we intended to stipulate that all subjects be reading on grade level of above. As was the case in our 1978-79 sample, we were unable to obtain many third and fourth graders who were below-average in writing but reading on grade level. Moreover, at all grade levels, below-average writers tended to be below-grade readers as well. As a result, and despite the fact that we canvassed 18 classrooms containing more than 500 students, we were able to obtain data from only 38 eligible below-average writers, thus making it impossible to follow our original design. (See Table 8.2)

Materials All subjects wrote two narratives about events pictured in two eight-panel cartoons. Each depicted a situation involving an adult caretaker who carelessly allows its young charge to get into trouble and two children who rescue the endangered character. In one case, the events occur at a zoo: a zookeeper allows a monkey to escape and the monkey is rescued by two boys who manage to catch it as it falls from a dangerous height. In the other, events occur at a swimming pool: a mother allows her baby to crawl onto a diving board and the baby is rescued by two girls who manage to catch it as it falls towards the water. In both cases, the action is organized in such a way that the adult caretakers are unaware of the potential danger to their charges and thus have only partial knowledge of events. (The cartoons are reproduced in Appendix F) Each cartoon was designed so that either the adult caretaker or the child rescuers could be construed as protagonists. Thus, in one condition subjects could be told that a given cartoon was "about what happened to" the adult and in the other, "about what happened to" one of the child rescuers.

Procedures Each child wrote two stories, one involving an adult protagonist in one content situation (pool or zoo) and one, a child protagonist in the other content situation. Half the children wrote both stories under instructions designed to encourage children to adopt a character's voice:

they were told to "pretend" to be the designated protagonist and "to tell what happened to you." The other half wrote under instructions designed to encourage the use of their own (author's) voice: they were told to write stories "about what happened to" the designated protagonist.[1] (Full instructions are reproduced in Appendix F) The instructions were counter-balanced across the two types of content (pool and zoo) and two protagonist conditions (child and adult) so that roughly half the children in grades three through five wrote about the adult and child protagonist in each condition. Counter-balancing was not possible in the sixth grade author's voice condition, due to a lack of sufficient sixth grade classes. The resulting design is presented in Table 8.3.[2]

---

[1]We had initially hoped to have all subjects write in all conditions, but results of a pilot study indicated that when children were asked to write in a character's voice at a first session, they were likely to write from characters' voices at subsequent sessions, despite instructions to write subsequent stories from their own perspectives. Thus it seemed best to use narrative voice as a between subjects variable.

[2]It should be noted that while narrative voice always appears as a between subject variable, type of content and type of protagonist are confounded. (i.e., There are no subjects who wrote about child protagonists in both the pool and zoo conditions or about adult protagonists in both.) Confounding effects

(footnote 2, continued) can be assessed, however, through separate analyses of child and adult protagonist stories in designs that treat both content and narrative voice as between subjects variables and thus eliminate within subject variables. The resulting designs are:

Child condition

	Character's voice		Author's voice	
Grade	Pool content	Zoo content	Pool content	Zoo content
3	10	10	10	10
4	10	10	12	8
5	10	10	9	11
6	10	10	0	19

Adult condition

	Character's voice		Author's voice	
Grade	Pool content	Zoo content	Pool content	Zoo content
3	10	10	10	10
4	10	10	8	12
5	10	10	11	9
6	10	10	19	0

Zoo content condition

	Character's voice		Author's voice	
Grade	Child focus	Adult focus	Child focus	Adult focus
3	10	10	10	10
4	10	10	8	12
5	10	10	11	9
6	10	10	19	0

Pool content condition

	Character's voice		Author's voice	
Grade	Child focus	Adult focus	Child focus	Adult focus
3	10	10	10	10
4	10	10	12	8
5	10	10	9	11
6	10	10	0	19

Tasks were administered by one of the researchers (J.C.W.) in children's classrooms as whole-group activities on separate days about a week apart. Children were allowed as much time as they wished to complete their compositions. Actual writing times varied from 4'30" to 38'30", with author's voice stories taking slightly longer than character's voice stories to complete. (Table 8.4)

Results

Our first set of analyses examine the extent to which designated characters actually function as protagonists in children's texts. Reasoning that protagonists should (by definition) receive the most attention in a text, we used as one index of protagonist status the relative frequency with which a designated character was actually mentioned. Reasoning that protagonists should also take the most active role in narratives and that one index of activity is the extent to which references to a character are encoded as sentence subjects, we also measured the relative frequency with which a designated character appeared as subject of a finite verb. Both measures were calculated as difference scores, computed as the number of references to a designated character minus the number of references to the next-most-

---

(footnote 2, continued) These designs have been used to assess possible confounding, as indicated in the text.

frequently-mentioned character. Positive scores would thus indicate that the designated character had functioned as a protagonist (according to our criteria) while negative scores would indicate a more uncertain status.

Relative frequency of mention scores are presented in Table 8.5. As can be seen, designated characters were mentioned more frequently than other characters when children were asked to write in that character's narrative voice. However, this was not the case when children were asked to write from their own (author's) perspective. Statistical reliability of these differences was assessed by a three-way repeated measures analysis of co-variance with grade level (3-6) and narrative voice (character's vs. author's) as between subject variables; type of protagonist (child vs. adult) as a within subject variable; and number of words per text as co-variate. The analysis revealed a main effect for voice (f=20.96; d.f.=1,150; p=.0001; m.s.= 544.39) and for type of protagonist (f=15.31; d.f.=1,150; p=.0001; m.s.=252.61) as well as a voice x protagonist interaction (f=8.77; d.f.=1,150; p=.004; m.s.=144.75). As can be seen from Tables 8.5 and 8.6, while character's voice and child protagonist resulted in the greatest relative frequency of mention for a designated character, the two together markedly increased frequency of mention. Possible confounding of content with type of protagonist was assessed in separate analyses of child and adult protagonist stories with grade level, story content (zoo vs. pool) and narrative voice as between subject variables. No statistically

significant effects for story content were observed in these analyses.

Sentence subject difference scores are presented in Table 8.7. As can be seen, designated characters appeared more frequently as subjects of finite verbs than did the next most frequently mentioned character in virtually all conditions. An analysis of co-variance with grade, narrative voice and type of protagonist as variables and words as co-variate revealed only a main effect for narrative voice (f=8.54;d.f.=1,150; p=.004; m.s.=135.4) with character's voice resulting in the larger difference scores ($\bar{X}$ characeter's voice=2.93; $\bar{X}$ author's voice=1.63). Separate analyses of child and adult protagonist texts revealed no confounding effect for story content.

Taken together, the data are equivocal. While designated characters achieved protagonist status on both measures in the character's voice condition, only one measure (sentence subject score) indicated protagonist status in the author's voice condition. Thus, the extent to which designated characters achieved protagonist status in that condition remains uncertain. At the moment, we are unable to explain the differences obtained on these two measures.

Our second set of analyses examined the extent to writers used an appropriate narrative voice. Children writing in the character's voice condition had been instructed to adopt the role of that character, telling the story from that character's point of view. Essentially, this

required a first person narrative with the narrative voice belonging to the designated protagonist. Thus, we would expect most references to the designated character to be encoded in the first person. (See examples, Table 8.8) While instructions in the author's voice condition ("to write about" a designated character) did not actually stipulate a third person narrative voice, evidence from our 1978-79 corpus would suggest that when children in this age range are given such instructions in a cartoon elicitation situation, they use a third person narrative voice about 80% of the time (Table 2.6, Chapter Two). Thus, we might expect most children in the author's voice condition to use a third person narration. One consequence would be that most references to the designated protagonist would be encoded in the third person. (See examples, Table 8.8)

References to designated characters in the two conditions were examined in a four-way repeated-measures analysis of co-variance with grade (3-6) and narrative voice as between subjects variables; type of reference to designated character (first person vs. third person) and type of designated protagonist (child vs. adult) as within subject variables; and number of words per text as co-variate. The analysis revealed main effects for narrative voice (f=26.59; d.f.= 1,150; p=.0001; m.s.=226.46; $\bar{X}$ character's voice=5.92; $\bar{X}$ author's voice=4.72) and type of reference (f=26.55; d.f.=1,150; p=.0001; m.s.=1114.59; $\bar{X}$ first person=6.64; $\bar{X}$ third person=4.00) as well as type of reference x grade

(f=5.89;d/f/=1,150;p=.001;m.s.=247.19) and type of reference x voice (f=208.16; d.f.=1,150; p=.000; m.s.=8737.42) interactions. As the expected type of reference x voice interaction illustrated in Table 8.9 shows, children were indeed able to adopt appropriate narrative voices: when asked to write in a protagonist's voice, reference to that character tended to occur in the first person; when writing in their own (author's) voice, reference to that same character tended to occur in the third person. Additionally, a grade x type of reference interaction (Table 8.10) shows that while use of third person reference tended to decline with age regardless of narrative voice, use of first person reference tended to increase. Since narrative voice did not interact with grade, this suggests that some factors other than voice were contributing to changes in the relative distribution of the two types of reference. One possibility is that as children got older, they tended to use more dialogue, a change which would result in increased first person reference to the designated protagonists regardless of narrative voice. (Text 5, Table 8.8)

For our present purposes, however, the main results of this analysis are the highly significant voice by type of reference interaction together with the lack of any interaction of voice with grade. This suggests that children in our study, regardless of grade, were able to adopt an appropriate narrative voice.

Thus far, the data show that children in our sample were able to carry out our directions: they seemed to focus on the designated protagonist and were able to adopt the requisite narrative voice. Current developmental theory would predict that children would have difficulty maintaining a consistent narrative voice, however, especially if it differed markedly from their own. Developmental theory would also predict that the cognitive effort involved would also result in somewhat simplified texts. These predictions were assessed in the next group of analyses.

In one we investigated the extent to which children in the various conditions had difficulty maintaining a consistent narrative voice. For this, we examined each text to determine whether it contained rhetorically unmotivated switches in narrative voice. These were defined as switches from a third to first person narration (or vice versa) in any portion of text that was not part of a direct quotation. (See examples, Table 8.11) Two coders, working independently, examined all texts for unmotivated switches. Intercoder reliabilities ranged from 89% to 100%, depending on type of text.

Differences in occurance of unmotivated switches in narrative voice were assessed in a three-way repeated measures analysis of co-variance with grade (3-6) and narrative voice (character's vs. author's) as between subject variables; type of protagonist (child vs. adult) as a within subject variable; and number of words per text as co-variate. The analysis revealed no main effects but did show a grade x

narrative voice interaction (f=2.64;d.f.=1,150; p=.05; m.s.=.13). As can be seen in Table 8.12, third grade children writing in the character's narrative voice produced more unmotivated voice switches than children in all other groups, whose production of unmotivated switches was uniformly lower. This suggests that for third grade children, the task of writing in a character's narrative voice may have been somewhat taxing. However, the lack of any effect for type of protagonist suggests that the difficulty did not seem to depend on whether characters had partial or full knowledge of events: stories in which writers adopted the voice of an adult protagonist resulted in no more unmotivated switches than occured when writers adopted the voice of a child.

In other analyses, we examined complexity of content. Once again, current developmental theory would lead us to predict that children attempting to write in the character's voice would tend to produce simpler content. Procedures for measuring story content are described in Appendix G. Briefly, a content coding scheme was developed, based on adult written accounts of events pictured in each cartoon. By asking adults to rate the importance of information included in their texts, we were able to arrive at a set of statements judged by adult writers to provide a succinct description of essential features of events pictured in each cartoon. Two coders, working independently, then examined each child's text to determine whether each item

of essential information was present. Overall, inter-coder reliability was 91%, ranging from 86% to 100% depending on type of text.

Differences in amount of essential content in children's texts were analyzed in a three-way repeated measures analysis of co-variance, with grade (3-6) and narrative voice (characters' vs. author's) as between subject variables; type of protagonist (child vs. adult) as within subject variable; and number of words per text as co-variate. The analysis showed a main effect for narrative voice (f=3.87; d.f.=1,150; p=.05; m.s.=4.71) and a marginal narrative voice x type of protagonist interaction (f=3.40; d.f.=1,150; p=.06;m.s.=4.29). Overall, the character's voice condition elicited less essential content than did the author's voice condition ($\bar{X}$ character's voice=4.96; $\bar{X}$ author's voice=5.24) but the differences were somewhat greater in the child than in the adult protagonist condition (See Table 8.13). The data, then, support the hypothesis that children writing in the character's voice condition produce somewhat simpler texts. Moreover, a lack of grade effect indicates that the simplification occured at all grade levels.

Finally, we might note that analyses of differences in story length also indicate some simplification in the character's voice condition. Although length is related to many different aspects of composition (See Chapter Seven)

it is nonetheless arguable that length is, in part, a measure of content. A three-way repeated measures analysis of variance of length (with grade and narrative voice as between subject variables and type of protagonist as within subject variable) revealed main effects for grade (f=12.01; d.f. 3;151; p=.000), voice (f=11.07; d.f., 1,151; p=.001) and type of protagonist (f=4.02; d.f.=1,150; p=.05), with character's voice and adult protagonist conditions each resulting in shorter texts ($\bar{X}$ character's voice=107.78; $\bar{X}$ author's voice=129.27; $\bar{X}$ adult protagonist=114.03; $\bar{X}$ child protagonist=121.65). (Length was also affected by grade, with younger children writing shorter texts: $\bar{X}$ 3rd grade=86.2; $\bar{X}$ 4th grade-122.02; $\bar{X}$ 5th grade-127.85; $\bar{X}$ 6th grade-138.02)

Taken together these analyses support some, but not all of our predictions. For example, although data from the National Assessment of Educational Progress in writing (NAEP, 1978) had shown that children as young as fourth grade were able to write from a character's point of view in simple ("expressive") narrative texts, we had expected that children would be less successful in the more complex narrative situations depicted in our cartoons. However, data in Tables 8.5, 8.6, 8.7 and 8.8 show that children at all grade levels were able to focus on a designated protagonist and write from a stipulated point of view. However, the data also show that the task of writing from

a character's point of view was not accomplished without cost. For one thing, children writing from a character's point of view produced shorter texts with simpler content. Moreover, third grade children attempting to write from a character's point of view were more likely than other subjects to produce rhetorically unmotivated switches in narrative voice. These lapses into a third person (author's) narration can be viewed as instances of "egocentric" simplification and, like simplifications of content, are predicted by current theories of development which hold that the task of adopting another's perspective taxes the cognitive capacity of elementary age children.

These theories would not, however, predict the observed age differences in type of difficulty: that younger children would have difficulty both maintaining voice and developing content while older children would have difficulty primarily with the latter. Nor is it clear why difficulties should continue to manifest as simplifications in content long after children have proved able to maintain appropriate narrative voice. One possibility is that while children are able to imagine and maintain an appropriate perspective, they are unable to conceptualize or word certain aspects of the pictured events to fit into that perspective. If this were true, then we would expect the relative frequency with which various items of essential content are included to differ in the two conditions. To determine whether frequencies were, in fact, similar, we rank ordered according to frequency the items of essential information included for each story in each condition. As can be seen in

Table 8.14, the rank ordering of the zoo story items was identical in the two narrative voice conditions. For the swimming pool stories, however, the rank orders in the two conditions did differ (rho=.54). Since separate analyses of variance for the two types of stories each yielded main effects for narrative voice (zoo: $\underline{f}$=3.88; d.f.=1,107; p=.05; m.s.=6.71; pool: $\underline{f}$=3.72; d.f.=1,107; p=.05; m.s.-6.85), with character's voice consistently resulting in less essential information than author's voice, it is probably best to conclude that several factors were working to reduce the amount of essential content in the character's voice stories. In the pool stories, discrepancies in the frequency with which specific items of information were included (Table 8.14) indicate that some items may have indeed been more difficult to encode in one condition than in the other. (In fact, two items accounted for most of the discrepancy: item two which involved information that the baby was on the diving board and to a lesser extent, item three which involved information that the baby had fallen into the pool.) However, the lack of any discrepancy in relative frequency in the zoo stories together with the main effect for narrative voice suggests that factors other than specific encoding difficulties may have been involved. What these might be remains, for the present, unclear.

Table 8.1

Number of subjects in each writing condition

	Voice condition	
Grade	Character's voice	Author's voice
3	20 (10 male, 10 female)	20 (9 male, 11 female)
4	20 (6 " 14 ")	20 (8 " 12 ")
5	20 (10 " 10 ")	20 (11 " 9 ")
6	20 (8 " 12 ")	19 (10 " 9 ")

Table 8.2

Eligible below-average writers

	Voice condition	
	character's voice	author's voice
grade		
3	0	0
4	10	9
5	10	0
6	9	0

Table 8.3

Experimental design: Number of subjects in each condition

	Voice condition			
	Character's voice		Author's voice	
Grade	Zoo/Pool*	Pool/Zoo*	Zoo/Pool*	Pool/Zoo*
3	10	10	10	10
4	10	10	8	12
5	10	10	0	19

*Adult/child

Table 8.4

Mean time to completion for each voice condition at each grade level

Character's voice condition

Grade	$\bar{X}$ first*	$\bar{X}$ tenth**	$\bar{X}$ last***
3	9'40"	18'35"	32'33"
4	4'46"	15'30"	30'45"
5	6'40"	9'53"	24'58"
6	9'30"	11'44"	19'47"

Author's voice condition

Grade	$\bar{X}$ first*	$\bar{X}$ tenth**	$\bar{X}$ last***
3	8'0"	15'17"	30'48"
4	9'39"	19'40"	31'38"
5	6'35"	11'47"	29'15"
6	8'5"	13'00"	31'33"

*$\bar{X}$ time for first child in a class to finish
**$\bar{X}$ time for tenth child in a class to finish
***$\bar{X}$ time for last child in a class to finish

Table 8.5

Mean frequency of mention difference score for designated characters in each voice condition at each grade level (Mean frequency of mention difference score=frequency with which designated character is mentioned minus frequency with which next-most-frequently-mentioned character is mentioned) (words as co-variate)

	Narrative voice condition			
	Character's voice		Author's voice	
Grade	Child prot.	Adult prot.	Child prot.	Adult prot.
3	1.50	1.35	-.45	-.55
4	3.15	1.35	1.55	-.40
5	2.70	.30	-.45	-.50
6	6.9	.85	-3.26	-.42

Table 8.6

Mean frequency of mentione difference score for designated characters in each voice and protagonist condition (Mean frequency of mention difference score= frequency with which designated character is mentioned minus frequency with which next-most-frequencyly-mentioned character is mentioned)(words as co-variate)

	Narrative voice condition	
Protagonist condition	Character's voice	Author's voice
Child	3.70	-.22
Adult	.70	-.57

Table 8.7

Mean sentence subject difference score for each voice condition at each grade level (sentence subject difference score=frequency with which reference to designated character is encoded as a sentence subject minus the frequency with which reference to next-most-frequently-mentioned character is encoded as a sentence subject) (words as co-variate)

	Narrative voice condition			
	Character's voice		Author's voice	
Grade	Child prot.	Adult prot.	Child prot.	Adult prot
3	2.0	2.9	1.0	.65
4	2.6	2.75	2.3	1.8
5	2.75	2.75	2.45	2.6
6	5.0	3.05	-.16	2.05

Table 8.8

Examples of texts produced in the character's voice and author's voice conditions

Character's voice

Text one: One day my friends and I went to the zoo. We were walking past monkey cage we saw a man selling balloons/ I stoped to buy one and said "could I have a red balloon please" the balloon man said "certainly." And at that moment the man who was feeding the monkeys opened the door to the cage and the monkey got out took the balloons and started sailing up in the air. Whe he was up about seven feet in the air the balloons popped and down the monkey came "We will catch him" we yelled. We did the man who was feeding the monkeys thanked us a hundred times we said good buy and went. When we got to my house I said "that sure was a exciting day". 4F*

Text two: One day while I was at the pool I started to doze off. My little baby started to climb on the diving board he crawled up to the end and started falling. I woke up to see two children jump in to save him. They swam over to him and then swam toward me. I took him from them. I was so relived. 4F

Author's voice

Text three: Once there was a girl named Sally. She had a friend named Carin. Carin invited Sally to go to the pool with her. When they got there Sally put on her green bathing suit and Carin put on her yellow bathing suit. They were putting their feet in the pool. On the other side of

Table 8.8

(cont.)

the pool a mother was laying down and her baby was crawling around.

Then the baby started to climb up the latter on the diving board. Sally and Carin were just about to go swimming when they saw the baby on the diving board the dove in the water as fast as the could and swam and caught the baby before he hit the water and swam to the mother. The mother bent down and picked up the baby She was so happy to see the baby she paided no attention to the girls. 4M

Text 4: There was once a zookeeper who loved Monkeys. He opened the gate so he could feed the Monkey, then the Monkey jumped out and grabbed the balloons. And flew in the air. (The Monkeys name was Greg.) The balloons flew out of his hand. Then Greg came falling and falling down. 2 boys that were visiting the zoo Peter Bobby caught Greg. Then the zookeeper thanked Peter and Bobby. 4F

Text 5: One day a boy Jonhy wanted to go to the zoo. He called up his friend David to see if he wanted to go with him. David said "Sure." When they got to the zoo Johny said "Lets look at the elephants. I just love feeding them peanuts I also love shaking his big trunk. To bad he doesn't have hands. Sometimes they blow their nose on you. "I think thats real disgusting" said David... . 6F

---

*Numbers and letters indicate authors grade and gender. Children's spellings and punctuation have been retained.

Table 8.12

Mean number of unmotivated switchs in narrative voice in each voice condition at each grade level (words as co-variate)

Type of narrative voice	Grade level 3	4	5	6
Character's	.13	.05	.025	.005
Author's	.025	.05	.05	.06

Table 8.13

Mean number of items of essential content information included in each narrative voice condition (words as co-variate)

	Type of protagonist	
Type of voice	Child	Adult
Character's	4.77	5.16
Author's	5.3	5.18

Table 8.14

Rank order of frequency with which items of content information are included in children's texts

	Pool stories
Character's voice	3> 5> 4> 2> 6> 1
Author's voice	2> 5> 3> 4> 1> 6

	Zoo stories
Character's voice	6 =2> 3> 4> 5>6
Author's voice	6> 2> 3> 4> 5>6

Chapter Nine: Children's Skill in Detecting and Correcting Rhetorical Problems in Narrative Text

The research to be reported in this chapter concerns age-related changes in children's ability to detect and correct three rhetorical problems: inconsistent narrative voice, inconsistent tense structure and inappropriate introduction of expository information. The research was intended to complement research described in Chapters Three through Eight by contrasting children's spontaneous rhetoric with their ability to detect and correct rhetorical problems in the texts of others. We had hypothesized that elementary age children would have particular difficulty maintaining consistent voice and tense structure in narrative compositions and intended to compare their hypothesized production difficulties with their skill in correcting the difficulties of others. Contrary to our expectations, however, children in our study produced relatively few inconsistencies in narrative voice (Table 8.12). Nor did we find many instances of tense inconsistency. As Table 2.7 shows, the vast majority of children in our 1978-79 sample use a consistent simple past tense structure and this was true of our 1982 sample as well. These results were not available when we began the research to be described below. Had we known that these inconsistencies were relatively rare in children's narrative texts, we undoubtedly would have elected to study children's editing of more common text problems. Nonetheless, the data do demonstrate some interesting discrepancies between children's editing and composing skills and for this reason seem worth reporting.

The research was undertaken with a sample of third through sixth grade children who participated in our 1982 study of narrative voice. In all, 112 students particiapted, 28 each in grades 3 through 6. As was the case in our study of narrative voice, half the subjects at each grade were judged by their teachers to be above-average and half, average in current writing skill. All subjects were also reading on grade level or above. (See Table 9.1)

Children were given ten short narrative passages to edit. Four contained a rhetorically unmotivated switch in narrative voice and four, an unmotivated switch in verb tense. In two passages, the switch in voice was from first to third person and in two, the switch was from third to first. Half the tense switches were from past to present and half from present to past. (See examples, Table 9.2) Children were also asked to edit two passages in which expository information (information about characters' names) was inappropriately presupposed. (See example, Table 9.2. The full set of problems appears in Appendix H.) Passages were reproduced on separate sheets of paper, stapled into ten-page booklets. The order of problems in each booklet was randomly determined for each subject.

The editing task was administered by one of the researchers (J.C.W.) in children's classrooms as whole group activities about a week after all writing tasks were completed. Instructions for administering the editing task are reproduced in Appendix H. Briefly, prior to beginning the editing task, children participated in a warm-up discussion about editing which afforded an opportunity for them to edit a practice text.

Children were allowed as much time as they wished to complete the task. Editing times varied from five to thirty-eight minutes (Table 9.3). Of interest is the fact that younger children took no longer than older children to complete the task. Moreover, comparison with data in Table 8.4 shows that they spent no longer at their editing than they did in composing their narrative texts.

We had expected that children would attempt to solve the tense and voice problems by changing deviant nouns and verbs to conform in voice or tense with those used in the initial portions of the texts (See texts 1 &2, Table 9.4). When we examined the texts, however, we found to our surprise that in the case of the tense problems, children adopted a second strategy as well: in many cases, they succeeded in producing a conisstent text by changing the initial verbs to conform in tense with those that we had considered to be deviant. (Example 3, Table 9.4)

Instances of each type of solution were tallied by two coders, working independently. Children were given credit for achieving a successful solution if (in adopting the first type of solution) they managed to change all of the deviant nouns or verbs or if (in adopting the second type of solution) they managed to change at least 50% if the non-conforming verbs. (The coding scheme is reproduced in Appendix H.) Inter-coder reliabilities were fairly high, ranging form 84% to 95% depending on type of editing problem.

As can be seen in Table 9.5, more problems were solved by fifth and sixth graders than by younger children. Moreover, at every grade, children were slightly more successful in solving

the tense than the voice problems. Data in Table 9.6 shows that type of change did not seem to affect the rate at which older children solved the voice problems but may have had some effect on the performance of younger children: while older children were equally adept at changing deviant first and third person nominals, younger children seemed somewhat more skilled at switching deviant third person to conform with a first person narration than the reverse. A closer look at the data, however, reveals that one problem (A3) was much easier than the others for younger children to solve and no doubt accounted for the differences observed in Table 9.6. (See Table 9.7) At the moment, we cannot account for these differences in item difficulty.

Data in Table 9.8 show that at all grade levels, problems involving deviant present tense verbs were more likely to be solved than those involving deviant past tense. Moreover, as can be seen in Table 9.9, children seemed to adopt different strategies in solving the two types of problems: for while children invariably solved the deviant present tense problems by changing the deviant verbs to the past tense, children were more likely to solve the deviant past tense problems by changing present tense verbs (which constituted the vast majority of verbs in a text) to conform to the few deviant past tense verbs (See example 3, Table 9.4). What this strategy demonstrates, then, is that elementary age children will go to considerable lengths to preserve a consistent past tense structure for narrative text. It suggests, as well, that (for whatever reason) elementary age children may be strongly biased against the use of present

tense temporal organizations in their narrative compositions, a hypothesis that receives additional support from data in Table 2.7.[1]

Along with tense and voice problems, children were also asked to edit two passages in which expository information concerning characters' names was inappropriately presupposed (example 3, Table 9.2). Solutions to these problems were deemed correct if they included some explicit linkages between one of the indefinitely references characters in the first sentence and the proper name in the second (see examples 1, 2, 4, Table 9.10) or if subjects delected proper names so that characters remained indefinite throughout the text (example 3, Table 9.10). Children's attempts at solving these problems were assessed by two coders, working independently. (Coding instructions and intercoder reliabilities are presented in Appendix H.) As can be seen in Table 9.11, the percentage of solutions was not particularly high at any grade level, ranging form 09% (for fourth graders) to 29% (for sixth graders). For whatever reason, it appears that this problem is quite difficult for elementary children to solve.

Taken together, then, the data indicate that during the elementary years children do demonstrate increasing skill in detecting and correcting inconsistent narrative voice and tense

---

[1]It is possible that mature writers might adopt a similar strategy as well, and we intend to study adult solutions to these editing problems in future research.

voice and tense structure. Moreover, although there is no indication that children find it any more difficult to detect and correct deviance in first as opposed to third person narration, there is some indication that children do find it easier to detect deviant present tense verbs in past tense text than the reverse. Although the reason for the difference is not entirely clear, it may well be related to the fact that children seem to show a strong bias towards the production of past tense narration. Finally, we should note that at all grade levels, children produced relatively few solutions to the problems involving inappropriately presupposed expository information.

Although it is clear that children managed to solve a substantial number of voice and tense problems, it is also true that the solution rates never exceeded 75% and, in the lower grades, were sometimes lower than 50%. By contrast, our analyses of children's narrative compositions show that tense inconsistencies were very infrequent, occuring no more than 10% of the time (Table 2.7), while inconsistencies in voice were even less frequent after the third grade year (Table 8.12). In other words, despite children's increasing editing skill, it is still the case that their edited texts contained a greater number of inconsistencies than occured in their narrative compositions. What this suggests is that an ability to produce rhetorically consistent text is not necessarily predictive of skill in correcting rhetorical inconsistencies in the texts of others. As Bartlett has argued (Bartlett, 1981) the two may draw on very different skills and knowledge.

Table 9.1

Subjects in editing study (N=112)

Grade	Average writers	Above average writers
3	14	14
4	14	14
5	14	14
6	14	14

Table 9.2

Examples of editing problems

Inconsistent narrative voice

One day Angela and Doreen went out to play tennis. Angela was serving. She hit the ball really hard and it landed in a tree. The girls tried to shake it down, but the ball wouldn't move. Then they went to find a long stick. At last we found one. Finally we got the ball down. Then the girls went back to their game.

Inconsistent verb tense

One day Steven and Luis decide to go fishing. They take their fishing rods and go to the pond. There they rent a boat and row out to the middle of the pond. They decide to use worms for bait. They dropped their hooks into the water. They waited for a fish. Nothing comes. The boys are feeling discouraged. Then all at once Steven and Luis feel tugs on their lines. They catch two big trout.

Inappropriately presupposed expository information

One hot summer day two girls decided to go swimming at the pool. But then something happened to Judy. She was swimming under water when all of a sudden a big kid crashed right into her. The kid hit Judy on the head. Judy almost fainted. She had to get out of the pool and rest for a while.

Table 9.3

Mean time to completion of editing task at each grade level

Grade	$\bar{X}$ first*	$\bar{X}$ tenth**	$\bar{X}$ last***
3	8'20"	16'33"	23'52"
4	10'12"	18'45"	30'34"
5	9'28"	16'52"	25'46"
6	10'33"	14'52"	28'58"

*$\bar{X}$ time for first child in a class to finish
**$\bar{X}$ time for tenth child in a class to finish
***$\bar{X}$ time for last child in a class to finish

Table 9.4

Acceptable solutions to the voice and tense editing problems

Solution 1 Once I went with my two friends, Emily and Carolyn, to the beach. When we got there, we found a rowboat. Emily and I ate on shore but Carolyn ate in the boat.

All at once a strong wind blew the boat out into the water. We could see that Carolun didn't have any oars. We didn't know what to do. Finally ~~the girls~~(we)* found a long rope. ~~They~~- (we) threw it to Carolyn. Then we pulled her to shore.

Solution 2 Jim wants to take his bike and go for a ride. Sam is coming too. The two boys get their bikes and ride to the park. They decide to race down Devil's Hill, the biggest hill in the park. At first Sam is in the lead. Then all of a sudden, he ~~tried~~(tries) his brakes. His brakes ~~didn't~~ (don't) work. His bike is going faster. He is sure he will crash. He tries his brakes again. This time they work. He is safe.

Solution 3 Jim ~~wants~~ (wanted) to take his bike and go for a ride. Sam ~~is coming~~ (came) too. The two boys ~~get~~- (got) theri bikes and ~~ride~~(rode) to the park. They ~~decide~~ (decided) to race down Devil's Hill, the biggest hill in the park. At first Sam ~~is~~(was) in the lead. Then all of a sudden he tried his brakes. His brakes didn't work. His bike ~~is~~- (was) going faster. He ~~is~~ (was) sure he ~~will~~ (would)

Table 9.4

(cont.)

crash. He ~~tries~~ (tried) his brakes again. This time they ~~work~~ (worked). He ~~is~~ (was) safe.

---

*Words with dashes (~~tries~~) are words that have been crossed out by the subjects. Words in parentheses (tried) are indicate children's substitutions.

Table 9.5

Percentage of voice and tense problems corrected at each grade level

Grade	Voice problems	Tense problems
3	37.75%	43.5%
4	41%	52.25%
5	60%	73.25%
6	66%	70.75%

Table 9.6

Percentage of voice problems solved by children at each grade level

	Type of problem	
Grade	Type 1*	Type 2**
3	46.5%	29%
4	48%	34%
5	64.5%	55.5%
6	66%	66%

---

*Type 1 = Voice problem in which deviant nominals are in first person

**Type 2= Voice problem in which deviant nominals are in third person

Table 9.7

Percentage of solutions to each voice problem at each grade level

	Voice problems			
Grade	Problem A1*	Problem A2	Problem A3	Problem A4
3	29%	29%	64%	29%
4	32%	39%	64%	29%
5	54%	61%	75%	50%
6	50%	75%	82%	57%

*Problems are reproduced in Appendix H

Table 9.8

Percentage of solutions to each type of tense problem at each grade level

Grade	Type of problem	
	Type 1*	Type 2**
3	35.5%	56.5%
4	39.5%	64.5%
5	55.5%	91%
6	54%	87.5%

*Type 1 = problems in which deviant verbs are in past tense

**Type 2 = problems in which deviant verbs are in present tense

Table 9.9

Percentage of each type of solution to each type of tense problem at each grade level

	Type of problem			
	Type 1*		Type 2	
Grade	Solution A**	Solution B	Solution A	Solution B
3	05.5%	25%	56.5%	0%
4	07.5%	32%	64.5%	0%
5	14.5%	41%	91%	0%
6	20%	34%	87.5%	0%

*Problem Type 1= problems in which deviant verb is in past tense
Problem Type 2= problems in which deviant verb is in present tense

**Solution A = changing deviant verbsto conform to majority of verbs (example 2, Table 9.4)
Solution B=changing majority of verbs to conform to few deviant verbs (example 3, Table 9.4)

Table 9.10

Acceptable solutions to editing problems that involve inappropriately presupposed expository information

Example of an editing problem

One hot summer day two girls decided to go swimming at the pool. But then something happened to Judy. She was...

Acceptable solutions

Type one One hot summer day two girls named Jane and Judy decided to go swimming.....

Type two One hot summer day Judy and another girl decided to go swimming....

Type three One hot summer day two girls decided to go swimming at the pool. But then something happened to one of them. She was....

Type four One hot summer day two girls decided to go swimming at the pool. But then something happened to one girl named Judy.

Table 9.11

Percentage of solutions to expository problems at each grade level

Grade	Expository problems
3	11%
4	09%
5	23%
6	29%

Chapter Ten: Some Concluding Comments

We have presented results from a number of different studies concerning the development of narrative rhetoric in elementary age children. It seems to us that the value of this work lies both in its substantive findings and its solutions to certain methodological problems.

Most basic, perhaps, is our finding that rhetorical complexity makes its own contribution to the increase in story length regularly observed during the elementary years, a contribution independent of the contributions of such general indices of literacy as grade level or reading, writing and editing skill. This provides some support for our belief that the development of skill in narrative writing depends in important ways on the development of narrative rhetoric and that the development of rhetorical skills and knowledge can be differentiated from the development of such other aspects of literacy as increasing fluency or the development of syntactic or lexical skills.

Data concerning the stability and generalizability of children's rhetorical skills are somewhat more complex, since rhetoric produced in one situation proved to be more generalizable than rhetoric produced in the second. That is, rhetoric produced in response to the skating stimuli proved to be a good predictor of rhetoric produced in response to the boating stimuli, despite the fact that the reverse was not the case. The finding is particularly compelling since the data come from within subject, repeated measures comparisons. The reasons for the differences

remain unclear, especially since every effort was made to design comparable stimuli for the two conditions. In any case the finding has important implications for writing assessment. On the one hand, it demonstrates that a generalizable rhetoric can be obtained. At the same time, it points to the important effect of apparently quite subtle differences in elicitation stimuli on the representativeness and reproducability of the narrative rhetoric obtained.

Much of our research effort was spent attempting to delineate patterns of growth in children's use of specific rhetorical devices: for example, their use of dramatization and suspense-generating techniques as well as explicit causal and motivational linkages. The specifics are described in Chapters Three through Six and will not be recapitulated here. However, several general trends in the data are worth emphasizing. For one thing, the data do offer support for the notion that children conceptualize their task in terms of fairly general story models which, in the case of our younger subjects, conform fairly well to the model of simple traditional story structure proposed by such researchers as Rumelhart, Stein & Glenn, and Mandler & Johnson but which, in the case of our older subjects, conform more to the in media res structure found in certain types of popular fiction. We should add, however, that (for older children at least) story model may depend on type of content, for although older children use an in media res structure when encoding an "everyday" or "realistic" content (such as that provided by our stimulus materials), they may draw on other types of models when encoding more exotic or fantastical materials.

A second point concerns the notion of plurifunctionality. Karmiloff-Smith (1979a) has emphasized the importance of plurifunctionality as an index of language development in her studies of children's referential use of determiners and pronouns. Thus, for example, she points out that while certain linguistic elements (such as articles) may be plurifunctional in adult usage, in the language of young children these elements may initially serve only a single function and, most important, that the change from unifunctional to plurifunctional use may involve extensive restructuring of the way in which children represent their linguistic knowledge. (See arguments in Karmiloff-Smith, 1979a,b.) We have observed a similar pattern of development in children's use of dialogue, which initially seems to function only to display on-going social interaction but which later (at about sixth or seventh grade) serves additionally to provide background exposition. We suspect that further research will reveal that children's use of other rhetorical devices follows a similar developmental pattern.

At the moment, we do not know which aspects of children's experiences might prove crucial in promoting plurifunctional usage. Karmiloff-Smith suggests that the development of plurifunctional use depends on practice and automaticity: as children gain skill in using a certain device for a certain function, they are eventually able to incorporate that function as a sub-goal within another, superordinate function. No doubt practice also leads to plurifunctional use of various rhetorical devices, but at present we know almost nothing about how this might best be achieved: for example, would deliberate articulation of goals and sub-goals hasten a plurifunctional reorganization or would practice,

independent of goal articula tion, be sufficient? Answers to questions such as these will enable us to design more effective instructional strategies.

Considerations of plurifunctionality lead directly to the problem of determining goals and functions that children themselves have in mind during composition. While our research was not intended to address such questions directly, they nonetheless rise up to haunt us whenever we attempt to infer from children's texts their rhetorical knowledge. For although we may point to the effect that certain wordings may have on a reader's interpretive activity (e.g., generating suspense or curiosity), there is nothing in the text itself to tell us whether these effects have actually been intended or foreseen. For example, we have observed (Chapter Three) that shifts in level of detail occur in children's texts. These shifts provide readers with important clues to story structure and young writers may have intended them to serve this function. However, young writers may also have produced such shifts in response to their own reactions to story events and may not have conceptualized their effect on a reader's response at all. Production of a particular wording depends on a number of considerations, including a writer's own response to the material, a writer's awareness of possible readers' responses and needs, and a writer's knowledge of particular genre constraints. We know little about the relative contributions of these to the outcome of any particular writing attempt nor do we understand how relative contributions might change with age or writing experience.

What our research has provided is a description of the range of wordings produced by children at different ages in certain narrative contexts. A next step is to begin to define the goals and skills that might underly them.

Along with its substantive findings, our research has also provided solutions to certain methodological problems. Most important of these is the problem of designing well-defined composition tasks that are ecologically valid while at the same time constrained enough to enable us to assess solutions to particular narrative problems. The design of such tasks has not been easy, for if writers are saddled with too many constraints, the tasks may begin to seem more like problems in editing or series of fill-in-the-blank exercises than compositions of extended text. At the same time, if writers are left entirely to their own devices, it is impossible to insure that all cope with the intended narrative problems. Ideally, one would want to present all subjects with a few well-defined composition problems and focus the analyses on their solutions as these appear in the wording of a few well-defined segments of text. Our use of cartoon elicitation procedures has, we feel, enabled us to accomplish this. By using cartoons to specify an event structure and task instructions to specify a rhetorical organization, we have been able to insure that subjects cope with a few well-defined narrative problems (e.g., telling a story from the point of view of a character who has full or partial knowledge of events) without apparently disrupting or overly constraining their usual procedures for composing extended narrative text.

(For another example of a well-defined composition problem, see Bartlett, in press; Miller, Bartlett, Hirst, 1982)

While the coding procedures adopted in this research were geared primarily to the content of these particular texts, some can also provide useful starting points for assessments of narrative rhetoric in other situations. Among the more generalizable efforts are the codes used to establish protagonist status and to define type of narrative voice (Chapter Eight) as well as codes designed to characterize dramatization and level of detail (Chapter Three). Our method of measuring amount of essential story content (Appendix G) is also readily applied to other narrative writings.

In conclusion, it is important to emphasize that the research has focused on children's use of specific rhetorical devices in well-defined narrative contexts. Underlying this approach is our belief that effective narrative rhetoric can be taught but that effective teaching must (like the research itself) focus on specific uses in well-defined narrative contexts.

Bibliography

Bartlett, E. J. Learning to revise: some component processes. In M. Nystrand (ed.) What writers know: The language, process and structure of written discourse. New York: Academic Press, 1981, 345-363.

Bartlett, E. J. Anaphoric reference in written narratives of good and poor elementary school writers. Journal of Verbal Learning and Verbal Behavior, in press.

Booth, E. C. The rhetoric of fiction. Chicago: University of Chicago Press, 1961.

Britton, J., Burgess, T., Martin, N., McLeod, A., Rosen, H. The development of writing abilities (11-18). London: Macmillan Education Ltd., 1975.

Bruce, B. A social interaction model of reading. Technical Report No. 218. Center for the Study of Reading, Champaign, Ill., 1981.

Burnett, H. & Burnett, W. Fiction Writer's Handbook. New York: Harper & Row, 1975.

Cassill, R. V. Writing fiction, second edition. Englewood Cliffs, N.J.: Prentice-Hall, Inc. 1975.

Chatman, S. Story and discourse: narrative structure in fiction and film. Ithaca, New York: Cornell University Press, 1978.

Corrigan, R. A scalogram analysis of the development of the use and comprehension of "because" in children. Child Development, 46, 1975, 195-201.

Culler, J. Structuralist poetics: structuralism, linguistics and the study of literature. Ithaca, N.Y.: Cornell University Press, 1975.

Flavell, J.H., Botkin, P.T., Fry, C.L., Wright, J. W. & Jarvis, P.E. The development of role-taking and communication skills in children. New York: Wiley, 1975.

Flower, L. & Hayes, J.R. The dynamics of composing: making plans and juggling constraints. In L. W. Gregg & E. R. Steinberg (Eds.) Cognitive processes in writing. Hillsdale, N. J.: Lawrence Erlbaum Assocs., 1980, 31-50.

Gennette, G. Narrative discourse. Ithaca, N.Y.: Cornell University Press, 1980.

Hills, R. Writing in general and the short story in particular. Boston: Houghton Mifflin Co., 1977.

Karmiloff-Smith, A. A functional approach to child language. London: Cambridge University Press, 1979a.

Karmiloff-Smith, A. Micro- and macrodevelopmental changes in language acquisition and other representational systems. Cognitive science, 3, 1979b, 91-118.

Klaus, C.H., Lloyd-Jones, R., Brown, R., Littlefiar, W., Mullis, I., Miller, D. & Verity, D. Composing childhood experience: an approach to writing and learning in the elementary grades. St. Louis: Cemrel, Inc., 1979.

Kuhn, D. & Phelps, H. The development of children's understanding of causal direction. Child Development, 49, 1978, 218-222.

Laurendeau, M. & Pinard, A. Development of the concept of space in the child. New York: International Universities Press, 1970.

Mandler, J. & JOhnson, N. S. Remembrance of things parsed: story structure and recall. Cognitive Psychology, 9, 1977, 111-151.

Mandler, J., Scribner, S., Cole, M. & DeForest, M. Cross cultural invariance in story recall. Child Development, 51, 1980, 19-26.

Menig-Peterson, C. L. & McCabe, A. Children's orientation of a listener to the context of their narratives. Developmental Psychology, 14, 1978, 582-592.

Miller, G.A., Bartlett, E.J., Hirst, W. Anaphora: a theory and its applications to developmental research. Final report submitted to the National Institute of Education, 1982.

Moffett, J. Teaching the universe of discourse. Boston: Houghton Mifflin Co., 1968.

National Assessment of Educational Progress. The second national assessment of writing: New and reassessed exercises with technical information and data. Denver: Educational Commission of the States. May, 1978.

Olson, G. M., Mack, R. L., & Duffy, S.A. Cognitive aspects of genre. Poetics, 10, 1981. 283-315.

Piaget, J. The language and thought of the child. New York: Meridian, 1955. (Originally published, 1925.)

Piaget, J. & Inhelder, B. The psychology of the child. New York: Basic Books, 1969.

Prince, G. A grammar of stories. The Hague: Mouton, 1973.

Rumelhart, D. Understanding and summarizing brief stories. In LaBerge, D. & Samuels, J. (Eds.) Basic processes in reading: Perception and comprehension. Hillsdale, N.J.: Lawrence Erlbaum, 1977, 265-303.

Stein, N.L. & Glenn, C.G. Children's concept of time: the development of a story schema. In (Ed.) The developmental psychology of time. New York: Academic Press. 1982. 255-282.

Stein, N.L. & Glenn, C.G. An analysis of story comprehension in elementary school children. In R.O. Freedle (Ed.) New directions in discourse processing, vol. 2. Norwood, N.J.: Ablex, 1979.

Stein, N.L. & Policastro, M. The concept of a story: a comparison between children's and teachers' viewpoints. In H. Mandl, N.L. Stein & T. Trabasso (Eds.) Learning and comprehension of text. Hillsdale, N.J.: Lawrence Erlbaum, in press.

Trabasso, T., Stein, N.L., & Johnson, L.R. Children's knowledge of events: a causal analysis of story structure. In (Ed.) The Psychology of learning and motivation, Vol. 15. New York: Academic Press, 1981, 237-281.

Sternberg, M. Expositional modes and temporal ordering in fiction. Baltimore: The Johns Hopkins University Press, 1978.

Todorov, T., The poetics of prose. Ithaca,N.Y.: Cornell University Press, 1977.

Umeker-Sebeok, D. Preschool children's intraconversational narratives. Journal of Child Language, 6, 1979, 91-110.